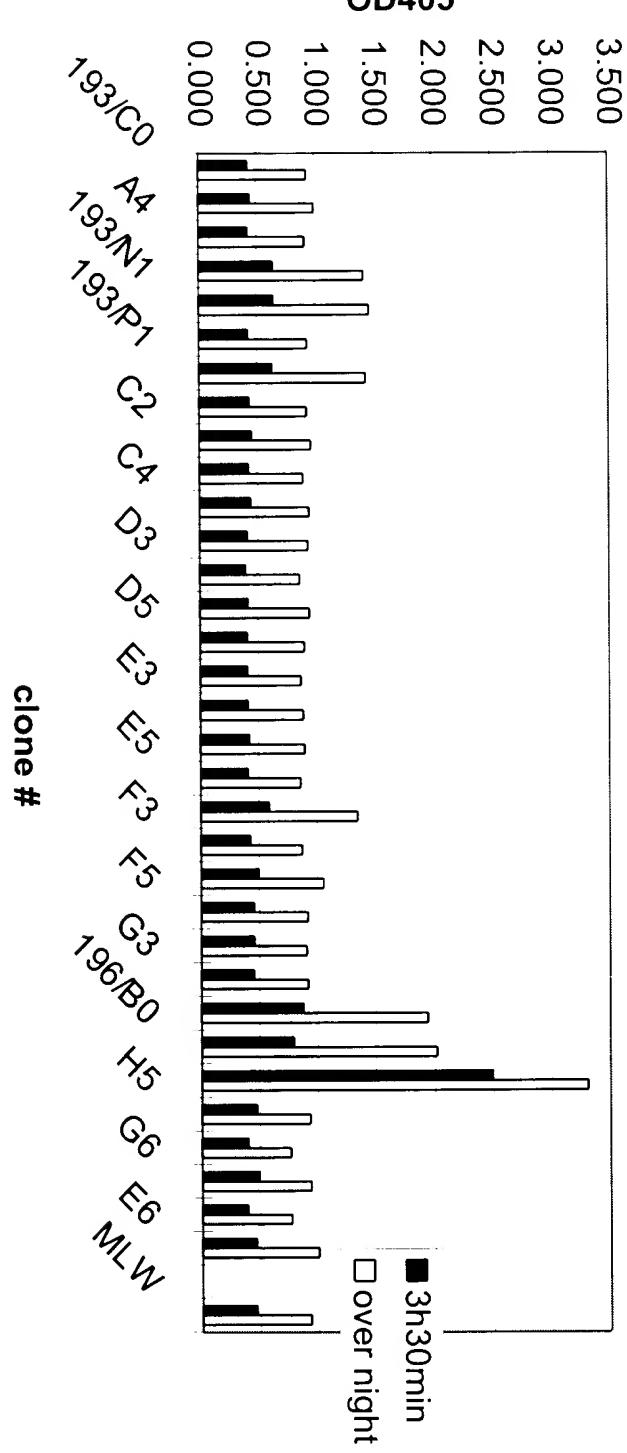


Fig. 1



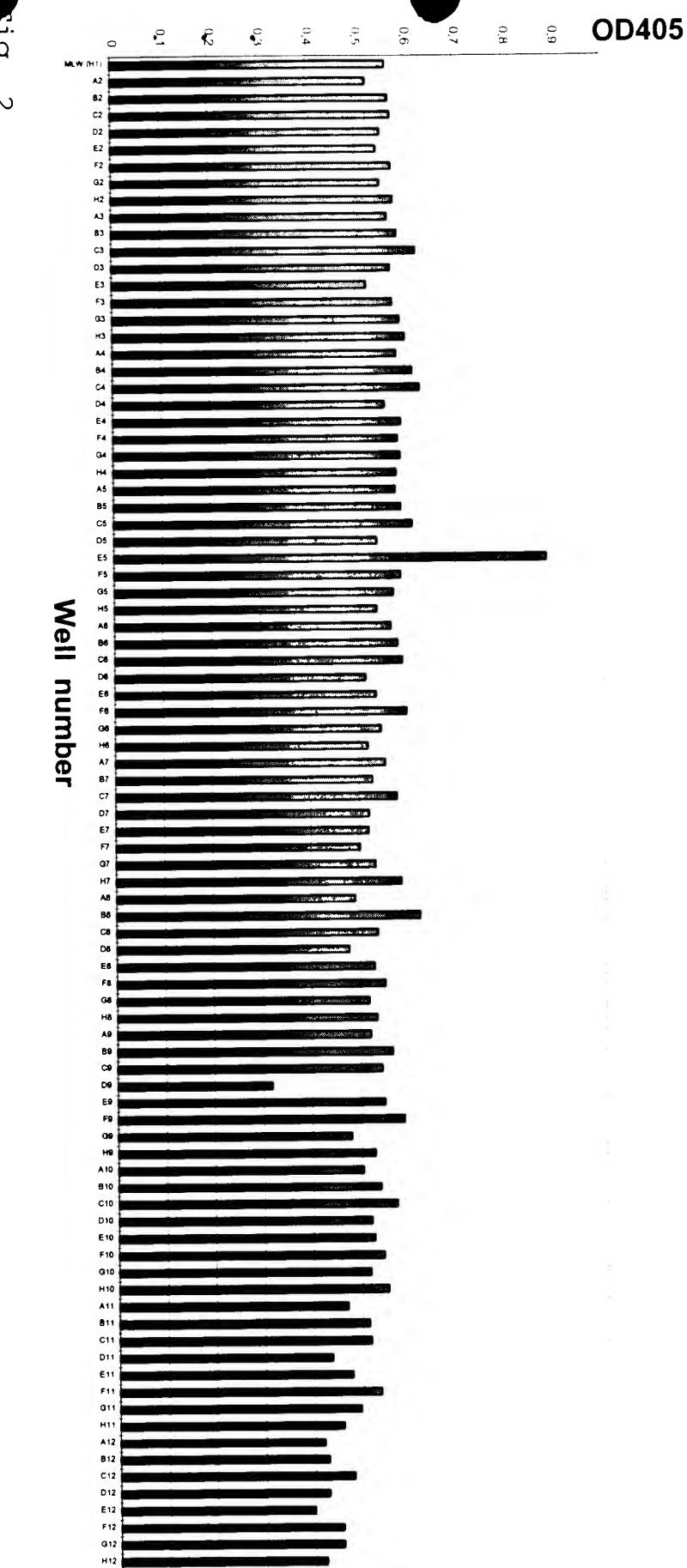


Fig. 2

OD405

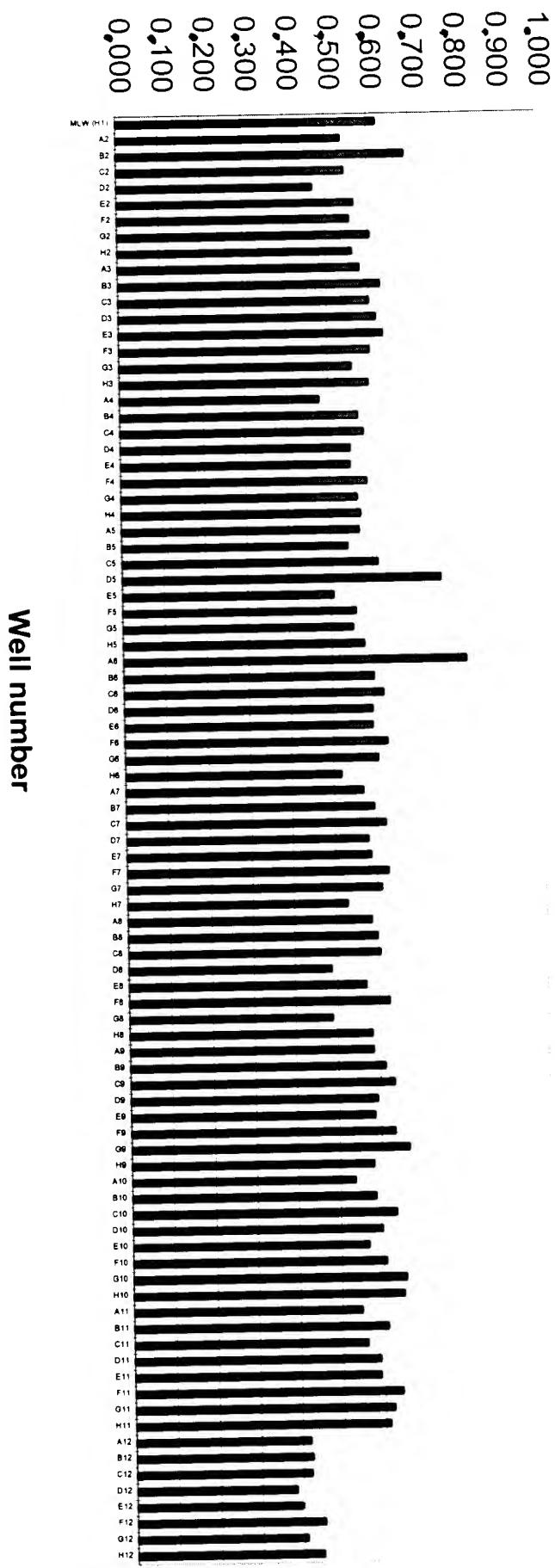


Fig. 3

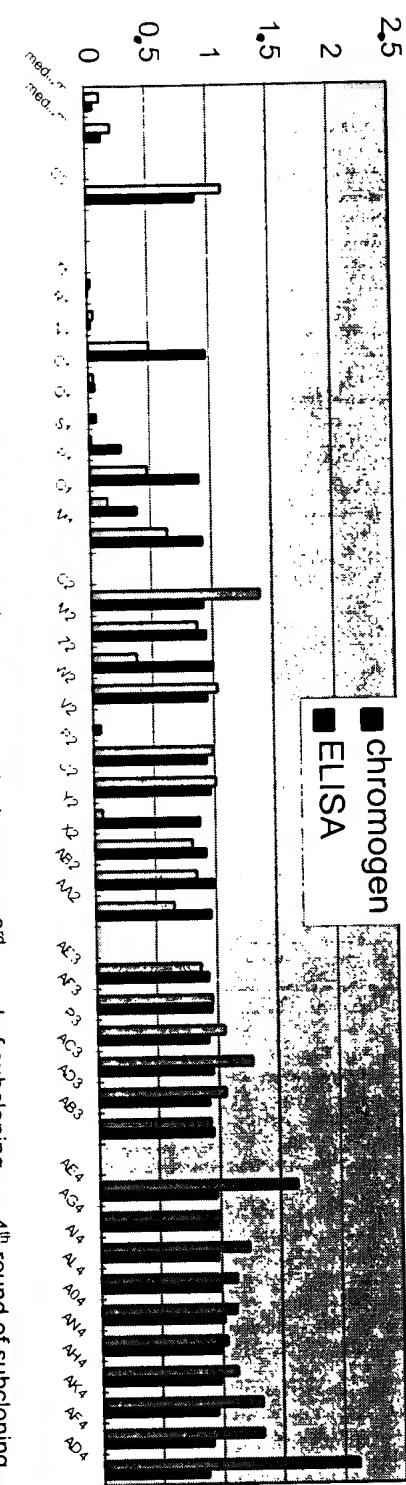
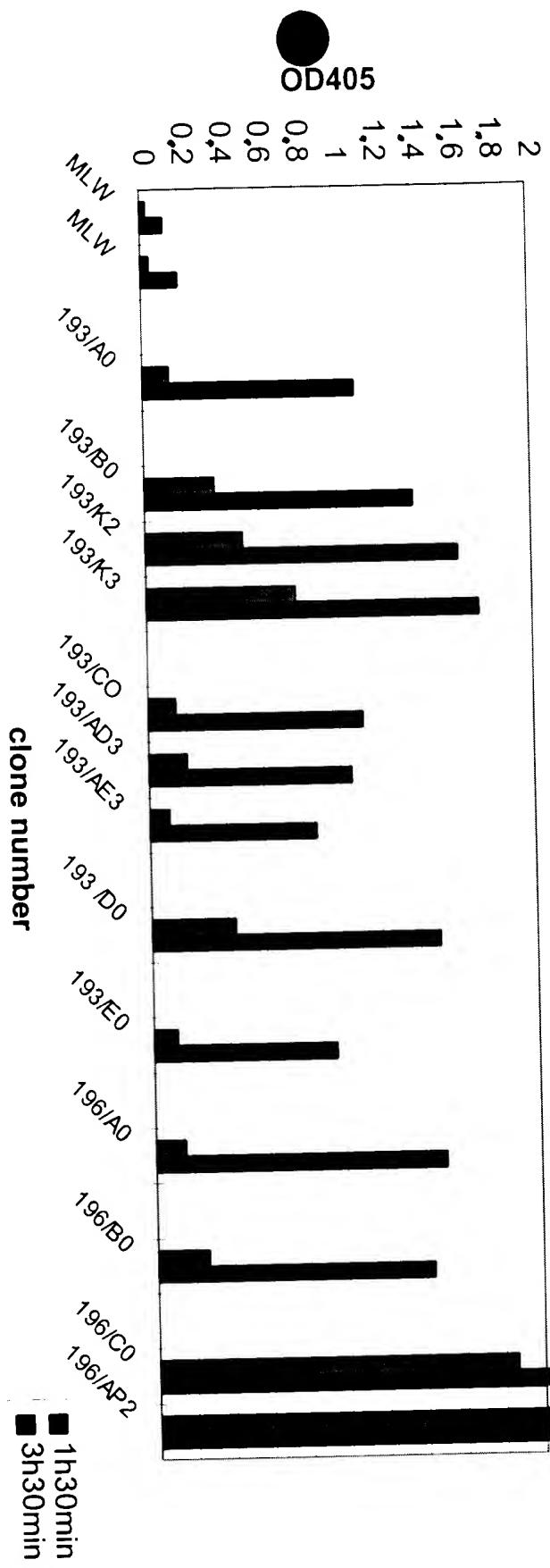


Fig. 4

Fig. 5



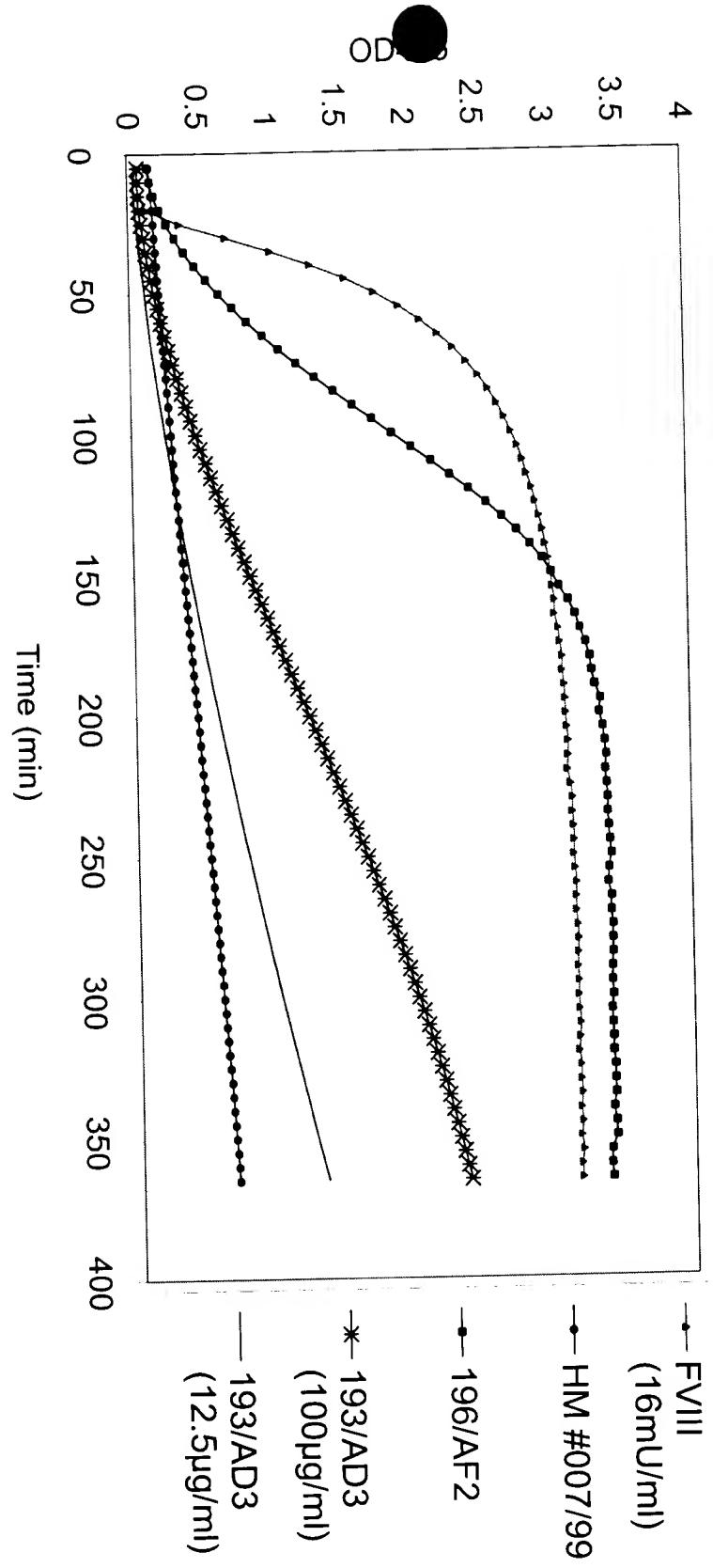


Fig. 6A

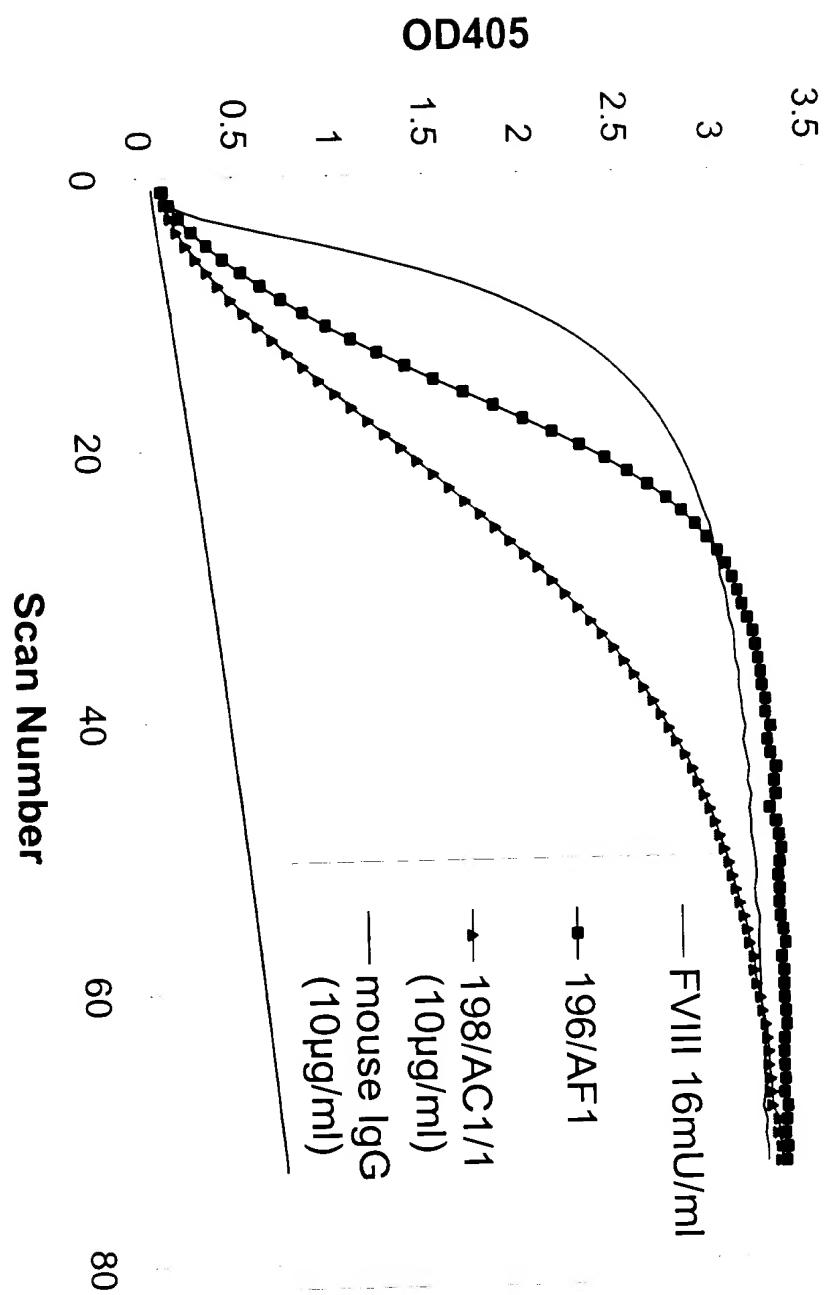


Fig. 6B

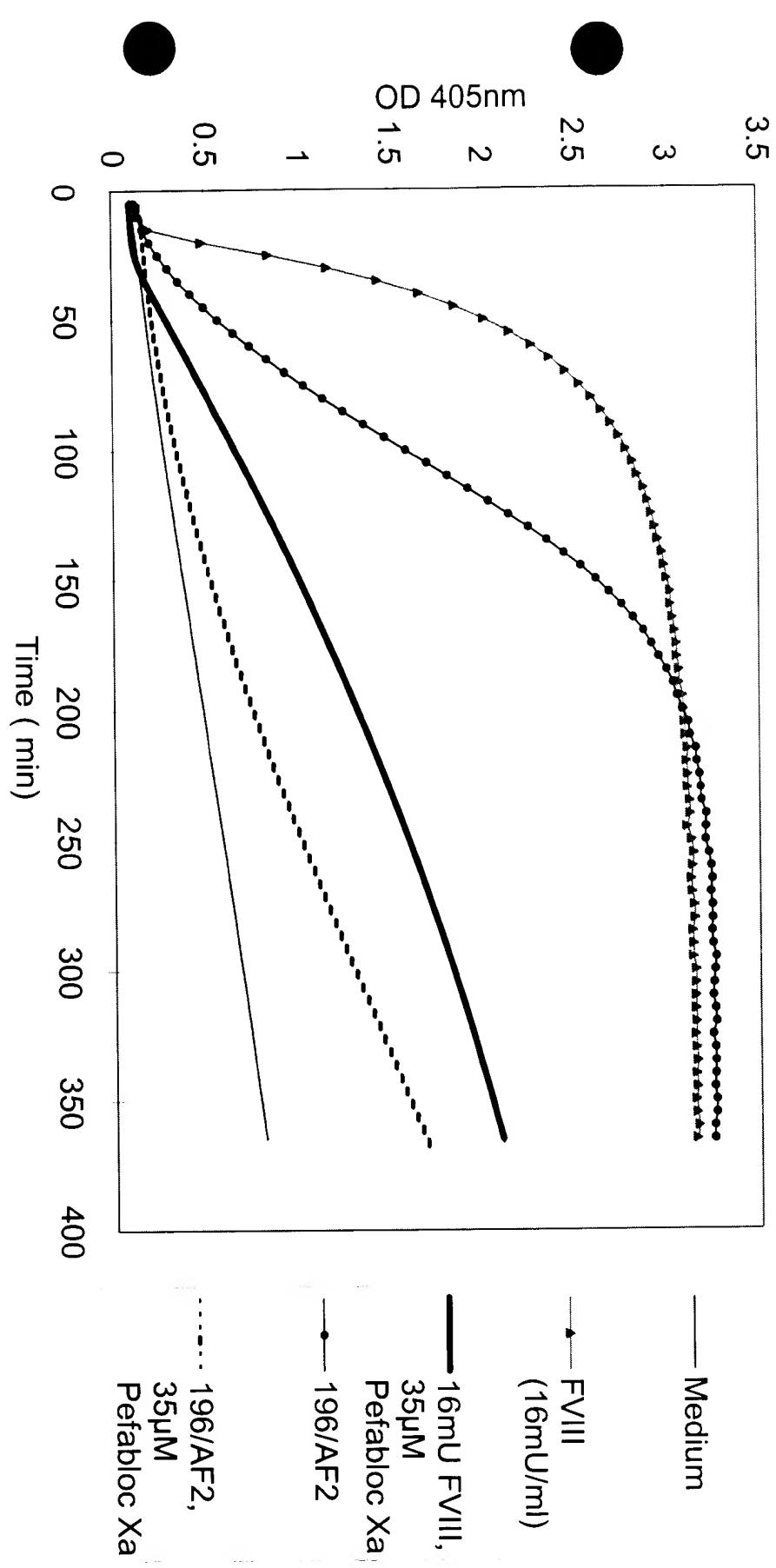


Fig. 7A

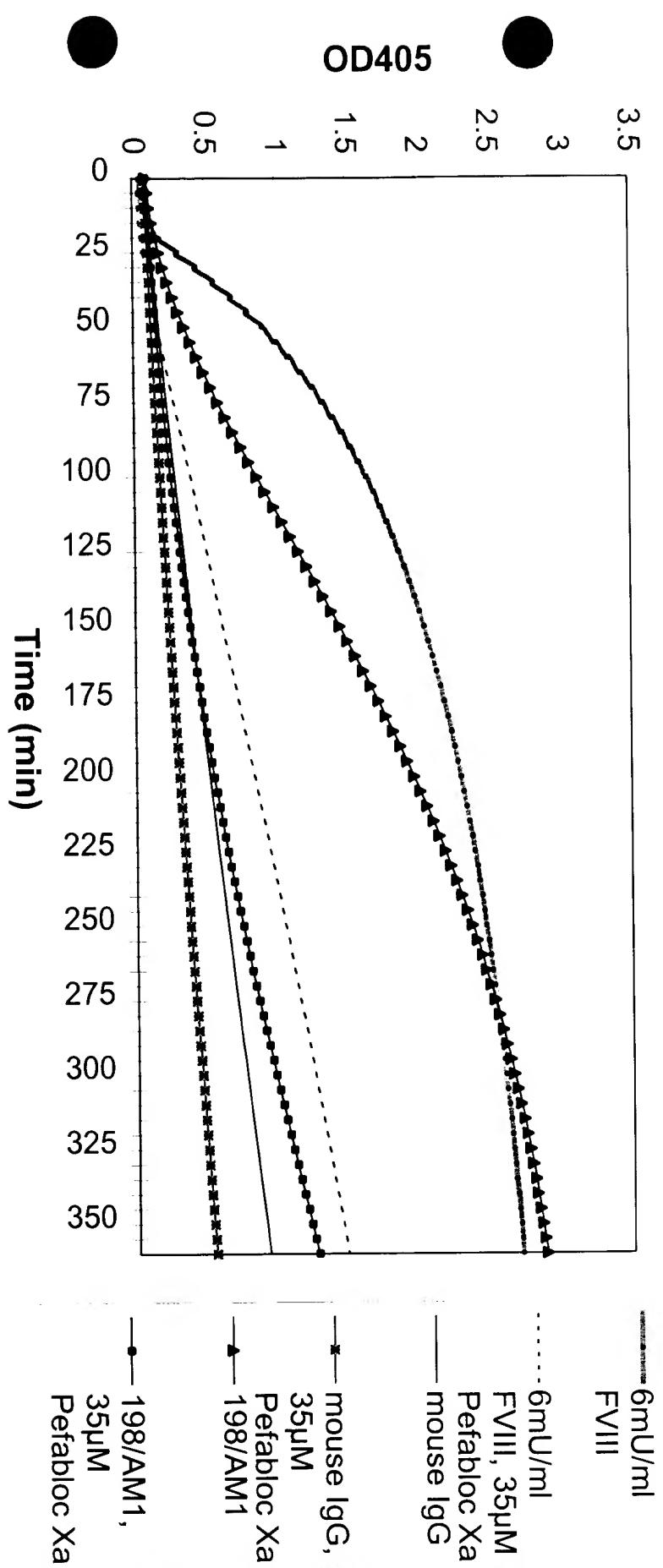


Fig. 7B

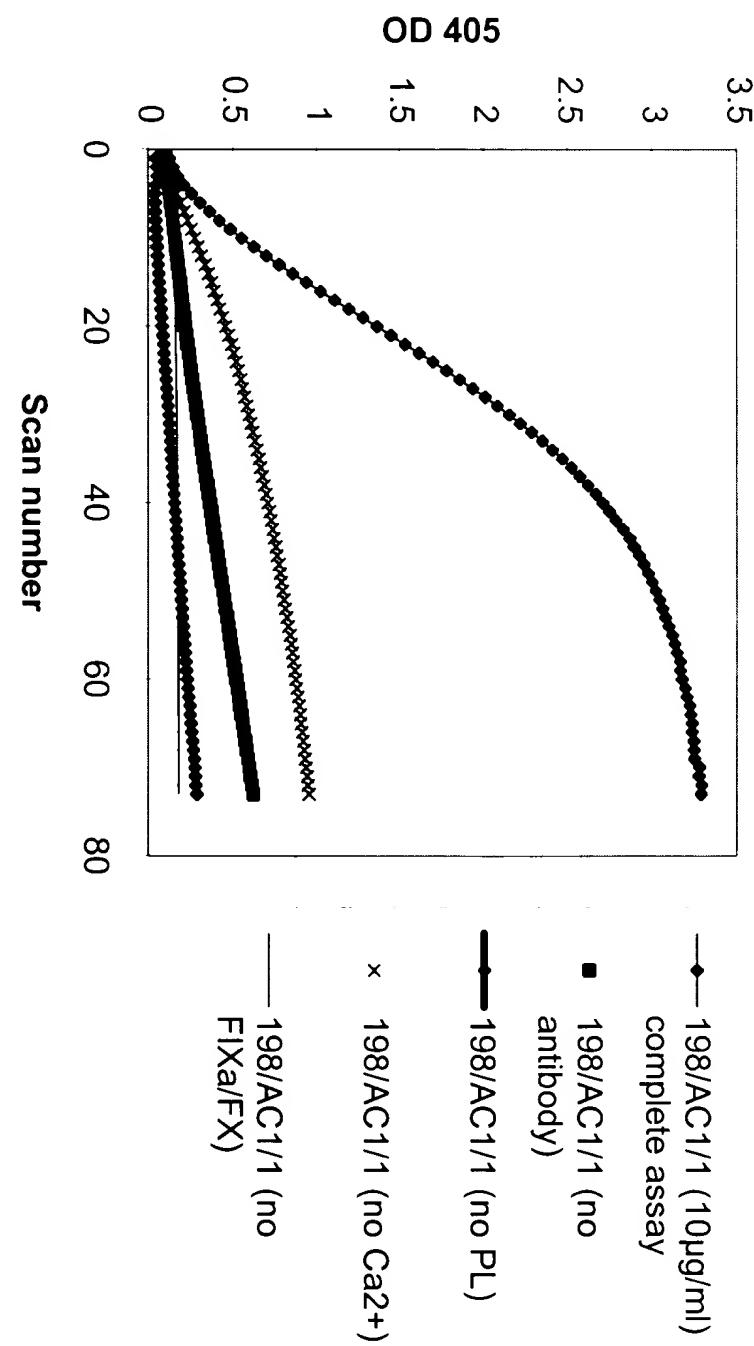


Fig. 8A

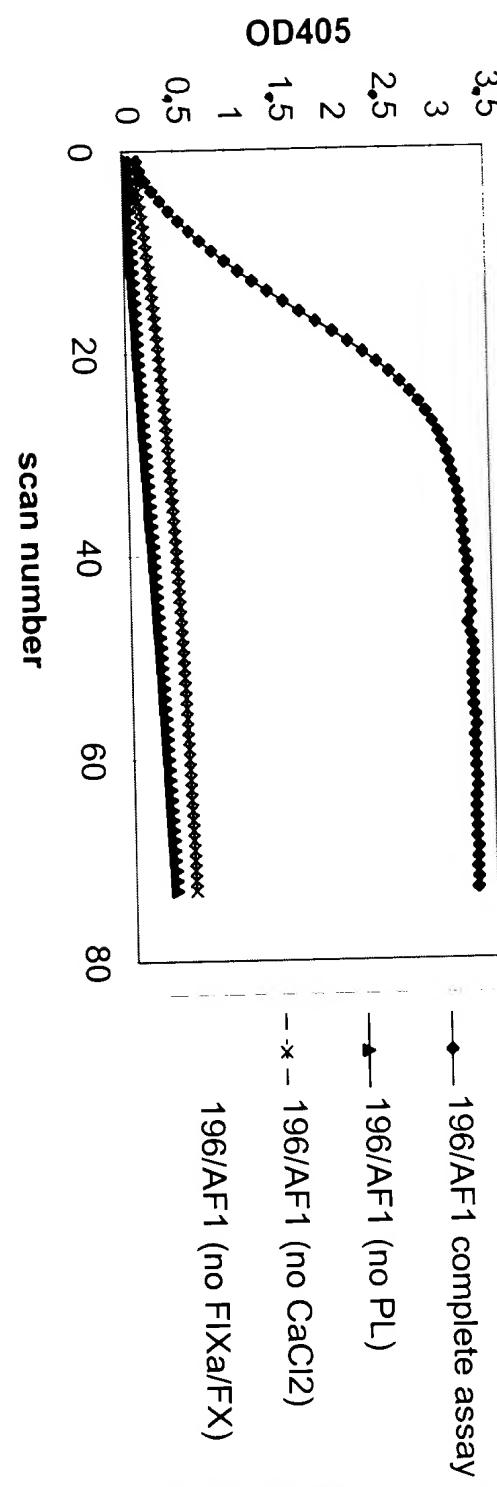


Fig. 8B

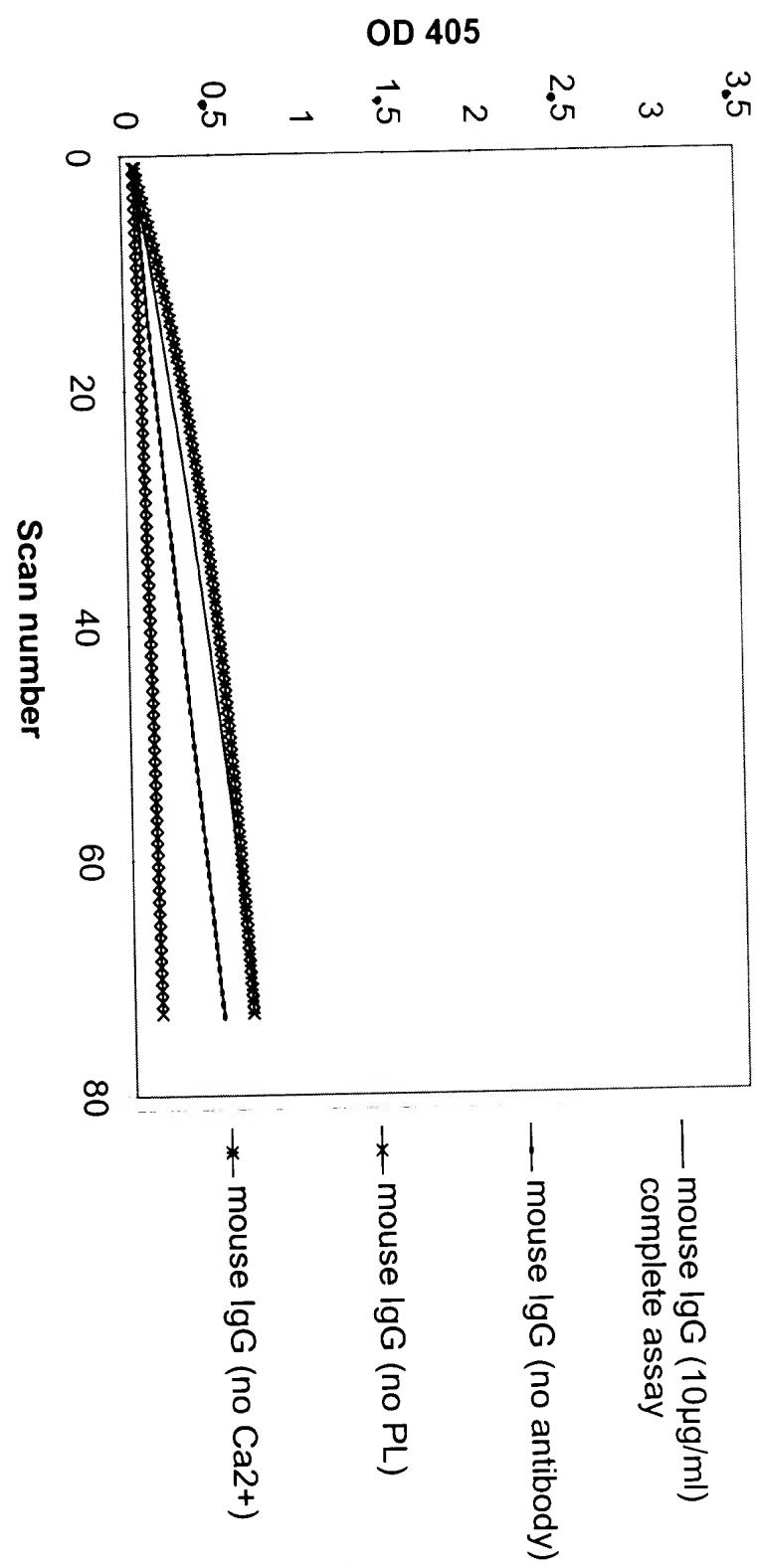
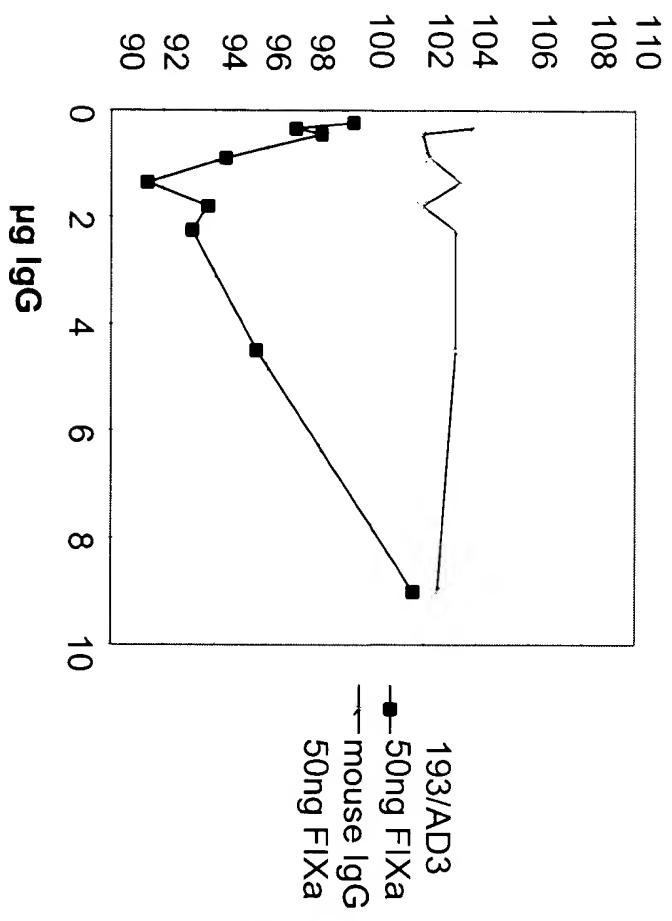


Fig. 8C

Fig.9



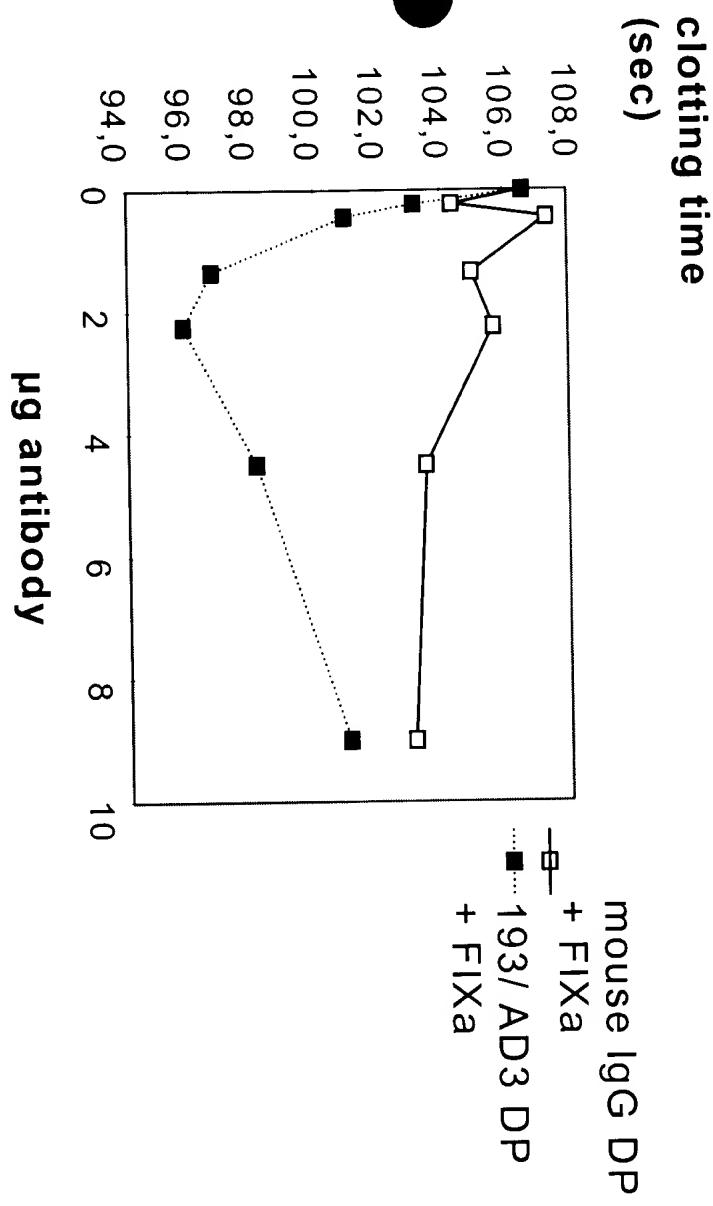


Fig. 10A

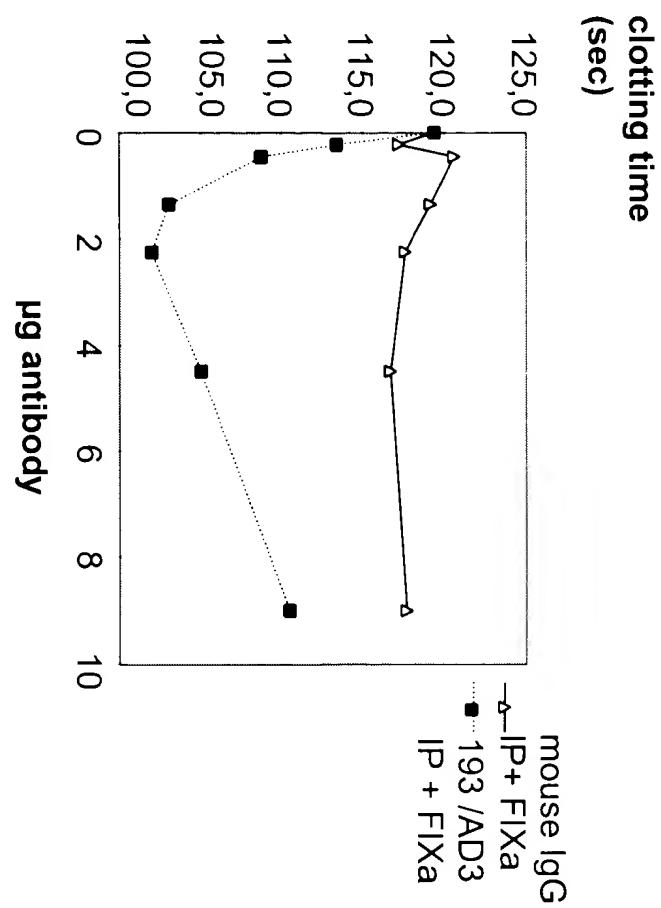


Fig. 10B

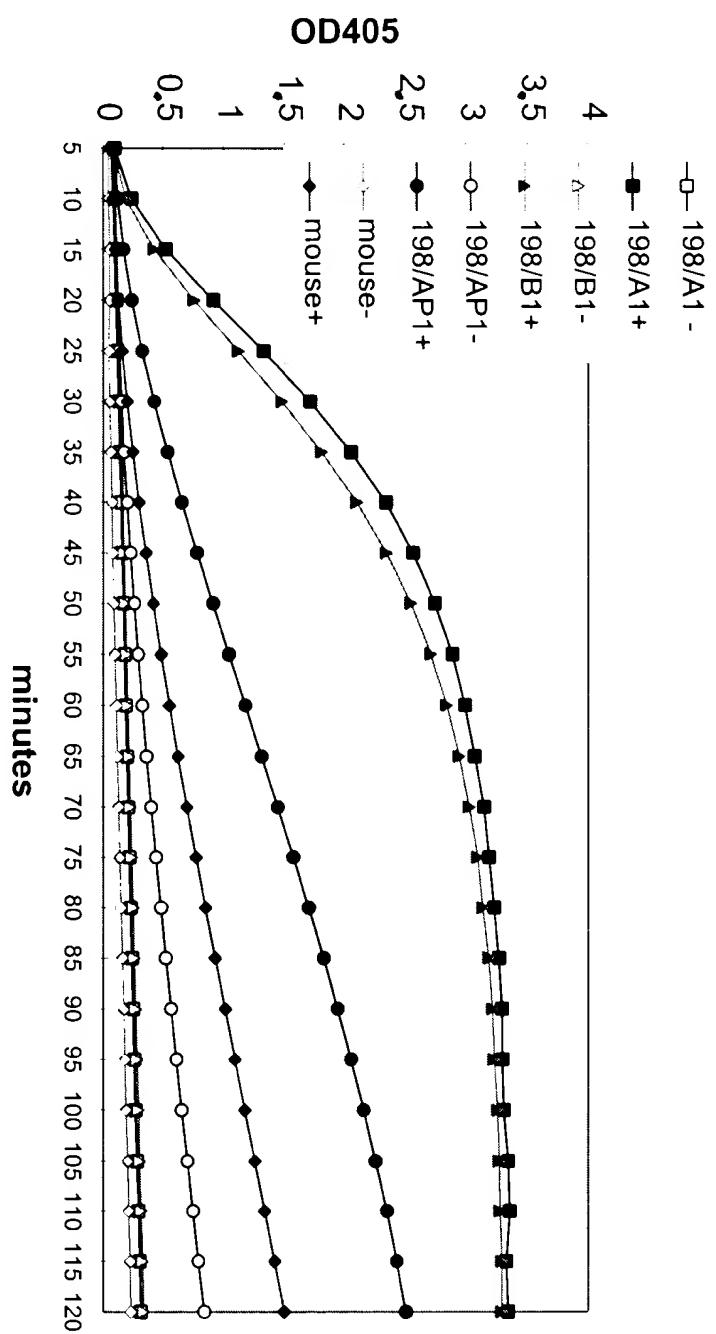


Fig. 11

Mouse  $V_H$  back primers (containing *Sfi*-site):

VH1BACK-Sfi	5' C ATG CCA TGA CTC GCG GCC CAG CCG GCC ATG GCC SAG GTS MAR CTG CAG SAG TCW GG 3' (SEQ.ID.NO. 50)
VH2BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAG GTG CAG CTT CAG GAG TCA GG 3' (SEQ.ID.NO. 51)
VH3BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAT GTG CAG CTT CAG GAG TCR GG 3' (SEQ.ID.NO. 52)
VH4/6BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC CAG GTG CAG CTG AAG SAG TCA GG 3' (SEQ.ID.NO. 53)
VH5/9BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAG GTY CAG CTG CAR CAR TCT GG 3' (SEQ.ID.NO. 54)
VH7BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC CAG GTY CAR CTG CAG CAG YCT GG 3' (SEQ.ID.NO. 55)
VH8BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAR GTG AAG CTG GTG GAR TCT GG 3' (SEQ.ID.NO. 56)
VH10BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAG GTT CAG CTT CAG CAG TCT GG 3' (SEQ.ID.NO. 57)
VH11BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC GAA GTG CAG CTG KTG GAG WCT GG 3' (SEQ.ID.NO. 58)
VH11BACKSfi	5' GTC CTC GCA ACT GCG GCC CAG CCG GCC ATG GCC CAG ATC CAG TTG CTG CAG TCT GG 3' (SEQ.ID.NO. 59)

Mouse  $J_H$  forward primers (containing  $\frac{1}{2}$  linker-sequence and ASCI-site):

VH1FOR2LiASC	5' ACC GCC AGA GGC GCG CCC ACC TGA ACC GCC TCC ACC TGA GGA GAC GGT GAC CGT GGT CCC TTG GCC CC 3' (SEQ.ID.NO. 60)
JH1FORLiASC	5' ACC GCC AGA GGC GCG CCC ACC TGA ACC GCC TCC ACC TGA GGA GAC GGT GAC CGT GGT CCC 3' (SEQ.ID.NO. 61)
JH2FORLiASC	5' ACC GCC AGA GGC GCG CCC ACC TGA ACC GCC TCC ACC TGA GGA GAC TGT GAG AGT GGT GCC 3' (SEQ.ID.NO. 62)
JH3FORLiASC	5' ACC GCC AGA GGC GCG CCC ACC TGA ACC GCC TCC ACC TGC AGA GAC AGT GAC CAG AGT CCC 3' (SEQ.ID.NO. 63)
JH4FORLiASC	5' ACC GCC AGA GGC GCG CCC ACC TGA ACC GCC TCC ACC TGA GGA GAC GGT GAC TGA GGT TCC 3' (SEQ.ID.NO. 64)

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IUPAC-Code: M=A/C, W=A/T, R=A/G, Y=C/T, S=C/G, K=G/T, H=A/C/T, D=A/G/T, V=A/C/G, B=T/C/G.

Fig. 12-2

Primers for cloning mouse  $V_k$  genes

Mouse  $V_k$  back primers (containing  $AsCI$ -site and  $\frac{1}{2}$  linker-sequence):

VK2BACK-LiASCI	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG GAC ATT GAG CTC ACC CAG TCT CCA 3' (SEQ.ID.NO. 65)
VK1BACKLi ASC	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG GAC ATT GTG ATG WCA CAG TCT CC 3' (SEQ.ID.NO. 66)
VK2BACKLi ASC	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG GAT GTT KTG ATG ACC CAA ACT CC 3' (SEQ.ID.NO. 67)
VK3BACKLi ASC	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG GAT ATT GTG ATR ACB CAG GCW GC 3' (SEQ.ID.NO. 68)
VK4BACKLi ASC	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG GAC ATT GTG CTG ACM CAR TCT CC 3' (SEQ.ID.NO. 69)
VK5BACKLi ASC	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG SAA AWT GTK CTC ACC CAG TCT CC 3' (SEQ.ID.NO. 70)
VK6BACKLi ASC	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG GAY ATY VWG ATG ACM CAG WCT CC 3' (SEQ.ID.NO. 71)
VK7BACKLi ASC	5' GGT TCA GAT GGG CGC GCC TCT GGC GGT GGC GGA TCG CAA ATT GTT CTC ACC CAG TCT CC 3' (SEQ.ID.NO. 72)
VK8BACKLi ASC	CAG GTG CTT GTG GG 3' (SEQ.ID.NO. 73)

FIG 13-1

Mouse  $J_K$  forward primers (containing NotI-site) :

JK1NOT10	5' GAG TCA TTC TGC GGC CGC CCG TTT GAT TTC CAG CTT GGT GCC 3'
	(SEQ. ID. NO. 74)
JK2NOT10	5' GAG TCA TTC TGC GGC CGC CCG TTT TAT TTC CAG CTT GGT CCC 3'
	(SEQ. ID. NO. 75)
JK3NOT10	5' GAG TCA TTC TGC GGC CGC CCG TTT TAT TTC CAG TCT GGT CCC 3'
	(SEQ. ID. NO. 76)
JK4NOT10	5' GAG TCA TTC TGC GGC CGC CCG TTT TAT TTC CAA CTT TGT CCC 3'
	(SEQ. ID. NO. 77)
JK5NOT10	5' GAG TCA TTC TGC GGC CGC CCG TTT CAG CTC CAG CTT GGT CCC 3'
	(SEQ. ID. NO. 78)

IUPAC-Code: K=G/T, M=A/C, W=A/T, R=A/G, Y=C/T, S=C/G, H=A/C/T, D=A/G/T, V=A/C/G, B=T/C/G.

Fig. 13-2

## VH

+1	E	V	K	L	V	E	S	G	P	E	L	K	K	P	G
1	GAG	GTG	AAG	CTG	GTG	GAG	TCT	GGA	CCT	GAG	CTG	AAG	AAG	CCT	GGA
+1	E	T	V	K	I	S	C	K	A	S	G	Y	I	F	T
46	GAG	ACA	GTC	AAG	ATC	TCC	TGC	AAG	GCT	TCT	GGG	TAT	ATC	TTC	ACA
+1	N	Y	G	M	N	W	V	K	Q	A	P	G	K	G	L
91	AAC	TAT	GGA	ATG	AAC	TGG	GTG	AAG	CAG	GCT	CCA	GGA	AAG	GGT	TTA
+1	K	W	M	G	W	I	N	T	Y	T	G	E	P	T	Y
136	AAG	TGG	ATG	GGC	TGG	ATA	AAC	ACC	TAC	ACT	GGA	GAG	CCA	ACA	TAT
+1	A	D	D	F	K	G	R	F	A	F	S	L	E	T	S
181	GCT	GAT	GAC	TTC	AAG	GGA	CGG	TTT	GCC	TTC	TCT	TG	GAA	ACC	TCT
+1	A	S	T	A	Y	L	Q	I	N	N	L	K	N	E	D
226	GCC	AGC	ACT	GCC	TAT	TG	CAG	ATC	AAC	AAC	CTC	AAA	AAT	GAG	GAC
+1	T	A	T	Y	F	C	A	L	Y	G	N	S	P	K	G
271	ACG	GCT	ACA	TAT	TTC	TGT	GCA	TTA	TAT	GGT	AAC	TCC	CTT	AAG	GGG

*linker*

+1	F	A	Y	W	G	Q	G	T	L	V	T	V	S	A	G
316	TTT	GCT	TAC	TGG	GGC	CAA	GGG	ACT	CTG	GTC	ACT	GTC	TCT	GCA	GGT

## VL

+1	G	G	G	S	G	G	R	A	S	G	G	G	S	D		
361	GCA	GGC	GGC	GGT	TCA	GGT	GGG	CGC	GGC	TCT	GGC	GGT	GGC	GGA	TCG	GAT
+1	I	Q	M	T	Q	S	P	K	F	L	L	V	S	A	G	
406	ATT	CAG	ATG	ACA	CAG	TCT	CCC	AAA	TTC	CTG	CTT	GTA	TCA	GCA	GGA	

+1	D	R	V	T	I	T	C	K	A	S	Q	S	V	S	N
451	GAC	AGG	GTT	ACC	ATA	ACC	TGC	AAG	GCC	AGT	CAG	AGT	GTG	AGT	AAT
+1	D	V	A	W	Y	Q	Q	K	P	G	Q	S	P	K	L
496	GAT	GTA	GCT	TGG	TAC	CAA	CAG	AAG	CCG	GGG	CAG	TCT	CCT	AAA	CTA
+1	L	M	Y	Y	A	S	N	R	Y	T	G	V	P	D	R
541	CTG	ATG	TAC	TAT	GCA	TCC	AAT	CGC	TAC	ACT	GGA	GTC	CCT	GAT	CGC
+1	F	T	G	S	G	Y	G	T	D	F	T	F	T	I	S
586	TTC	ACT	GGC	AGT	GGA	TAT	GGG	ACG	GAT	TTC	ACT	TTC	ACC	ATC	AGC
+1	T	V	Q	A	E	D	L	A	V	Y	F	C	Q	Q	D
631	ACT	GTG	CAG	GCT	GAA	GAC	CTG	GCA	GTT	TAT	TTC	TGT	CAG	CAG	GAT
+1	Y	G	S	P	P	T	F	G	G	G	T	K	L	E	I
676	TAT	GGC	TCT	CCR	CCC	ACG	TTC	GGA	GGG	GGC	ACC	AAG	CTG	GAA	ATT
+1	K	R													
721	AAA	CGG													

Fig. 14-2

+1	E	V	Q	L	V	E	S	G	G	G	L	V	K	P	G
1	GAA	GTG	CAG	CTG	GTG	GAG	TCT	GGG	GGA	GGA	CTA	GTG	AAG	CCT	GGA
+1	G	S	L	K	L	S	C	A	A	S	G	F	T	F	S
46	GGG	TCC	CTG	AAA	CTC	TCC	TGT	GCA	GCC	TCT	GGA	TTC	ACT	TTC	AGT
+1	T	Y	T	M	S	W	V	R	Q	T	P	E	K	R	L
91	ACC	TAT	ACC	ATG	TCT	TGG	GTT	CGC	CAG	ACT	CCG	GAG	AAG	AGG	CTG
+1	E	W	V	A	T	I	S	S	G	G	S	Y	T	Y	Y
136	GAG	TGG	GTC	GCA	ACC	ATT	AGT	AGT	GGT	GGT	AGT	TAC	ACC	TAC	TAT
+1	P	D	S	V	R	G	R	F	T	I	S	R	D	N	A
181	CCA	GAC	GAC	AGT	GTG	AGG	GGC	CGA	TTC	ACC	ATC	TCC	AGA	GAC	AAT
+1	K	N	T	L	Y	L	Q	M	S	S	L	K	S	E	D
226	AAG	AAC	ACC	CTG	TAC	CTG	CAA	ATG	AGC	AGT	CTG	AAG	TCT	GAG	GAC
+1	T	A	M	Y	Y	C	T	R	D	G	G	H	G	Y	G
271	ACA	GCC	ATG	TAT	TAC	TGT	ACA	AGA	GAT	GGG	GGA	CAC	GGG	TAC	GGT
+1	S	S	F	D	Y	W	G	Q	G	T	T	L	T	V	S
316	AGT	AGC	TTT	GAC	TAC	TGG	GCG	CAA	GGC	ACC	ACT	CTC	ACA	GTC	TCC
+1	S	G	G	G	G	S	G	G	R	A	S	G	G	G	G
361	TCA	GGT	GGA	GGC	GGT	TCA	GGT	GGG	CGC	GCC	TCT	GGC	GGT	GGC	GGA
VL															
linker															
+1	S	Q	I	V	L	T	Q	S	P	L	S	L	P	V	S
406	TCG	CAA	ATT	GTG	CTC	ACC	CAG	TCT	CCA	CTC	TCC	CTG	CCT	GTC	AGT

F16 15-1

+1	L	G	D	Q	A	S	I	S	C	R	S	S	Q	S	I
451	CTT	GGA	GAT	CAA	GCC	TCC	ATC	TCT	TGC	AGA	TCT	AGT	CAG	AGC	ATT
+1	V	H	S	N	G	N	T	Y	L	E	W	Y	L	Q	K
496	GTA	CAT	AGT	AAT	GGA	AAC	ACC	TAT	TTA	GAA	TGG	TAC	CTG	CAG	AAA
+1	P	G	Q	S	P	K	L	L	I	Y	K	V	S	N	R
541	CCA	GGC	CAG	TCT	CCA	AAG	CTC	CTG	ATC	TAC	AAA	GTT	TCC	AAC	CGA
+1	F	S	G	V	P	D	K	F	S	G	S	G	S	G	T
586	TTT	TCT	GGG	GTC	CCA	GAC	AAA	TTC	AGT	GGC	AGT	GGA	TCA	GGG	ACA
+1	D	F	T	L	K	I	S	R	V	E	A	E	D	L	G
631	GAT	TTC	ACA	CTC	AAG	ATC	AGC	AGA	GTG	GAG	GCT	GAG	GAT	CTG	GGA
+1	V	Y	Y	C	<b>F</b>	Q	G	S	<b>H</b>	<b>V</b>	<b>P</b>	<b>W</b>	<b>T</b>	<b>F</b>	<b>G</b>
676	GTT	TAT	TAC	TGC	<b>TTT</b>	<b>CAA</b>	<b>GGT</b>	<b>TCA</b>	<b>CAT</b>	<b>GTT</b>	<b>CCG</b>	<b>TGG</b>	<b>ACG</b>	<b>TTC</b>	<b>GTC</b>
1	G	G	T	K	L	E	I	K	R						
721	GGA	GGC	ACC	AAG	CTG	GAA	ATC	AAA	CGG						

Fig. 15 - 2

+1 E V Q L Q E S G G L V K P G  
 1 GAG GTG CAG CTT CAG GAG TCA GGG GGA GGC TTA GTG AAG CCT GGA  
 +1 G S L K L S C A A S G F T F S  
 46 GGG TCC CTG AAA CTC TCC TGT GCA GCC TCT GGA TTC ACT TTC AGT  
 +1 S Y T M S W V R Q T P E K R L  
 91 AGC TAT ACC ATG TCT TGG GTT CGC CAG ACT CCG GAG AAG AGG CTG  
 +1 E W V A T I S S G G S S T Y Y  
 136 GAG TGG GTC GCA ACC ATT AGT AGT GGT GGT AGT TCC ACC TAC TAT  
 +1 P D S V K G R F T I S R D N A  
 181 CCA GAC AGT GTG AAG GGC CGA CAA TTC ACC ATC TCC AGA GAC AAT GCC  
 +1 K N T L Y L Q M S S L R S E D  
 226 AAG AAC ACC CTG TAC CTG CAA ATG AGC AGT CTG AGG TCT GAG GAC  
 +1 T A M Y Y C T R E G G G F T V  
 271 ACA GCC ATG TAT TAC TGT ACA AGA GAG GGG GGT GGT TTC ACC GTC  
 +1 N W Y F D V W G A G T L V T V  
 316 AAC TGG TAC TTC GAT GTC TGG GGC GCA GGG ACT CTG GTC ACT GTC  
  
 linker  
 +1 S A G G G G S G G R A S G G G  
 361 TCT GCA GGT GGA GGC GGT TCA GGT GGG CGG CGC GCC TCT GGC GGT GGC  
  
 VL  
 +1 G S E N V L T Q S P A S L A V  
 406 GGA TCG GAA AAT GTG CTC ACC CAG TCT CCA GCT TCT TTG GCT GTG

FIG 16-1

+1 S L G Q R A T I S C R A S E S  
451 TCT CTA GGG CAG AGG GCC ACC ATA TCC TGC AGA GCC AGT GAA AGT  
  
+1 V D S Y G Y N F M H W Y Q Q I  
496 GTT GAT AGT TAT GGC TAT AAT TTT ATG CAC TGG TAT CAG CAG ATA  
  
+1 P G Q P P K L L I Y R A S N L  
541 CCA GGA CAG CCA CCC AAA CTC CTC ATC TAT CGT GCA TCC AAC CTA  
  
+1 E S G I P A R F S G S G S R T  
586 GAG TCT GGG ATC CCT GCC AGG TTC AGT GGC AGT GGG TCT AGG ACA  
  
+1 D F T L T I N P V E A D D V A  
631 GAC TTC ACC CTC ACC ATT AAT CCT GTG GAG GCT GAT GAT GTT GCA  
  
+1 T Y Y C Q Q S N E D P L T F G  
676 ACC TAT TAC TGT CAG CAA AGT AAT GAG GAT CCG CTC ACC TTC GGT  
  
+1 T G T R L E I K R  
721 ACT GGG ACC AGA CTG GAA ATA AAA CGG

Fig.16 - 2

		VH																			
+1	E	V	Q	L	Q	E	S	G	G	G	L	V	K	P	G	G	S	L	K	L	
1	GAG	GTG	CAG	CTT	CAG	GAG	TCA	GGG	GGG	GGG	TTA	GTG	AAG	CCT	GGG	GGG	TCC	CTG	AAA	CTC	
	CTC	CAC	GTC	GAA	GTC	CTC	AGT	CCC	CCT	CCG	AAT	CAC	TTC	GGG	CCT	CCC	AGG	GAC	TTT	GAG	
+1	S	C	A	A	S	G	F	I	F	S	S	Y	T	M	S	W	V	R	Q	T	
61	TCC	TGT	GCA	GCC	TCT	GGA	TTC	ATT	TTT	AGT	AGT	TAT	ACC	ATG	TCT	TGG	GTT	CGC	CAG	ACT	
	AGG	ACA	CGT	CGG	AGA	CCT	AAG	TAA	AAA	TCA	TCA	ATA	TGG	TAC	AGA	ACC	CAA	GCG	GTC	TGA	
+1	P	E	K	R	L	E	W	V	A	T	I	S	S	G	G	S	S	T	Y	Y	
121	CCG	GAG	AAG	AGG	CTG	GAG	TGG	GTC	GCA	ACC	ATT	AGT	AGT	GGR	GGR	TCC	ACC	TAC	TAT		
	GGC	CTC	TTC	TCC	GAC	CTC	ACC	CAG	CGT	TGG	TAA	TCA	TCA	CCA	CCA	TCA	AGG	TGG	ATG	ATA	
+1	P	D	S	V	K	G	R	F	T	I	S	R	D	N	A	K	N	T	L	Y	
181	CCA	GAC	AGT	GTG	AAG	GGC	CGA	TTC	ACC	ATC	TCC	AGA	GAC	AAT	GCC	AAG	AAC	ACC	CTG	TAC	
	GGT	CTG	TCA	CAC	TTC	CCG	GCT	AAG	TGG	TAG	AGG	TCT	CTG	TTA	CGG	TTC	TTG	TGG	GAC	ATG	
+1	L	Q	M	S	S	L	K	S	E	D	T	A	M	Y	H	C	T	R	<b>E</b>	<b>G</b>	
241	CTG	CAA	ATG	AGC	AGT	CTG	AAG	TCT	GAG	GAC	ACA	GCC	ATG	TAT	CAC	TGT	ACA	AGA	GAG	GGG	
	GAC	GTT	TAC	TCG	TCA	GAC	TTC	AGA	CTC	CTG	TGT	CGG	TAC	ATA	GTG	ACA	TGT	TCT	CTC	CCC	
+1	<b>G</b>	<b>G</b>	<b>Y</b>	<b>Y</b>	<b>V</b>	<b>N</b>	<b>W</b>	<b>Y</b>	<b>F</b>	<b>D</b>	<b>V</b>	<b>W</b>	<b>G</b>	<b>A</b>	<b>G</b>	<b>T</b>	<b>T</b>	<b>L</b>	<b>T</b>	<b>V</b>	
301	GGT	GGT	TAT	TAC	GTC	AAC	TGG	TAC	TTC	GAT	GTC	TGG	GGC	GCA	GGC	ACC	ACT	CTC	ACA	GTC	
	CCA	CCA	ATA	ATG	CAG	TTG	ACC	ATG	AAG	CTA	CAG	ACC	CCG	CGT	CCG	TGG	TGA	GAG	TGT	CAG	

*Linker*

		VL																			
+1	S	S	G	G	G	G	G	R	A	S	G	G	G	G	S	D	I	E			
361	TCC	TCA	GGT	GGA	GGC	GGT	TCA	GGT	GGG	CGC	GCC	TCT	GGC	GGT	GGC	GGG	TCG	GAC	ATT	GAG	
	AGG	AGT	CCA	CCT	CCG	CCA	AGT	CCA	CCC	CGC	CGG	AGA	CGA	CCG	CCA	CCG	CCT	AGC	CTG	TAA	CTC
+1	L	T	Q	S	P	A	S	L	A	V	S	L	G	Q	R	A	T	I	S	C	
421	CTC	ACN	CAG	TCT	CCA	GCT	TCT	TTG	GCT	TCT	CTA	GGG	CAG	AGG	GCC	ACC	ATA	TCC	TGC		
	GAG	TGN	GTC	AGA	GGT	CGA	AGA	AAC	CGA	CAC	AGA	GAT	CCC	GTC	TCC	CGG	TGG	TAT	AGG	ACG	

481	+1	R	A	S	E	S	V	D	S	Y	G	K	S	F	M	H	W	Y	Q	Q	K
		AGA	GCC	AGT	GAA	AGT	GTT	GAT	AGT	TAT	GGC	AAG	AGT	TTT	ATG	CAC	TGG	TAC	CAG	CAG	AAA
		TCT	CGG	TCA	CTT	TCA	CAA	CTA	TCA	ATA	CCG	TTC	TCA	AAA	TAC	GTG	ACC	ATG	GTC	GTC	TTT
541	+1	P	G	Q	P	P	K	L	L	I	Y	R	A	S	N	L	E	S	G	I	P
		CCA	GGG	CAG	CCA	CCC	AAA	CTC	CTC	ATC	TAT	CGT	GCA	TCC	AAC	CTA	GAA	TCT	GGG	ATC	CCT
		GGT	CCC	GTC	GGT	GGG	TTT	GAG	GAG	TAG	ATA	GCA	CGT	AGG	TTG	GAT	CTT	AGA	CCC	TAG	GGA
601	+1	A	R	F	S	G	S	G	S	R	T	D	F	T	L	T	I	N	P	V	E
		GCC	AGG	TTC	AGT	GGC	AGT	GGG	TCT	AGG	ACA	GAC	TTC	ACC	CTC	ACC	ATT	AAT	CCT	GTG	GAG
		CGG	TCC	AAG	TCA	CCG	TCA	CCC	AGA	TCC	TGT	CTG	AAG	TGG	GAG	TGG	TAA	TTA	GGA	CAC	CTC
661	+1	A	D	D	V	A	T	Y	Y	C	Q	Q	S	N	E	D	P	L	T	F	G
		GCT	GAT	GAT	GTT	GCN	ACC	TAT	TAC	TGT	CAG	CAA	AGT	AAT	GAG	GAT	CCC	CTC	ACG	TTC	GGT
		CGA	CTA	CTA	CAA	CGN	TGG	ATA	ATG	ACA	GTC	GTT	TCA	TTA	CTC	CTA	GGG	GAG	TGC	AAG	CCA
721	+1	A	G	T	R	L	E	I	K	R											
		GCT	GGG	ACC	AGA	CTG	GAA	ATA	AAA	CGG											
		CGA	CCC	TGG	TCT	GAC	CTT	TAT	TTT	GCC											

Fig. 17-2

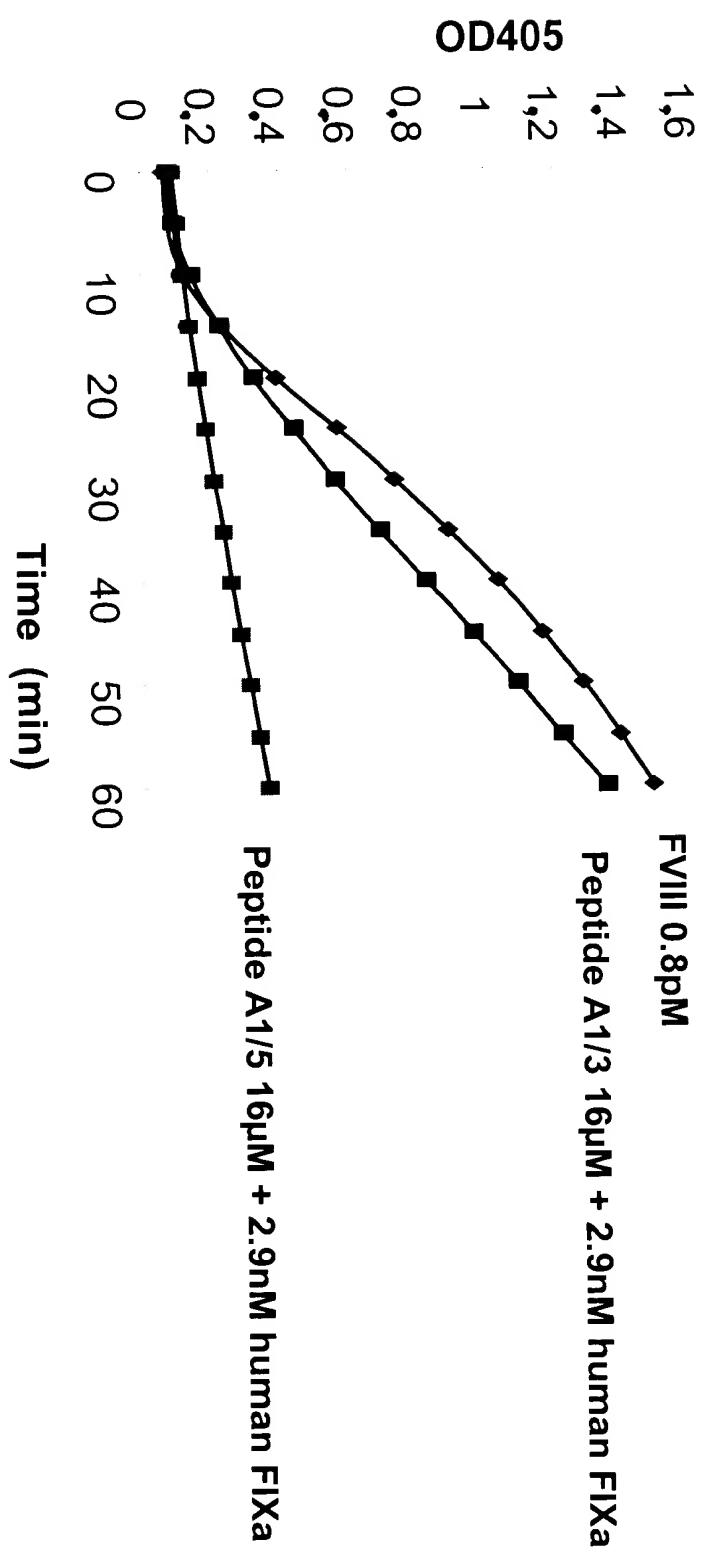


Fig. 18

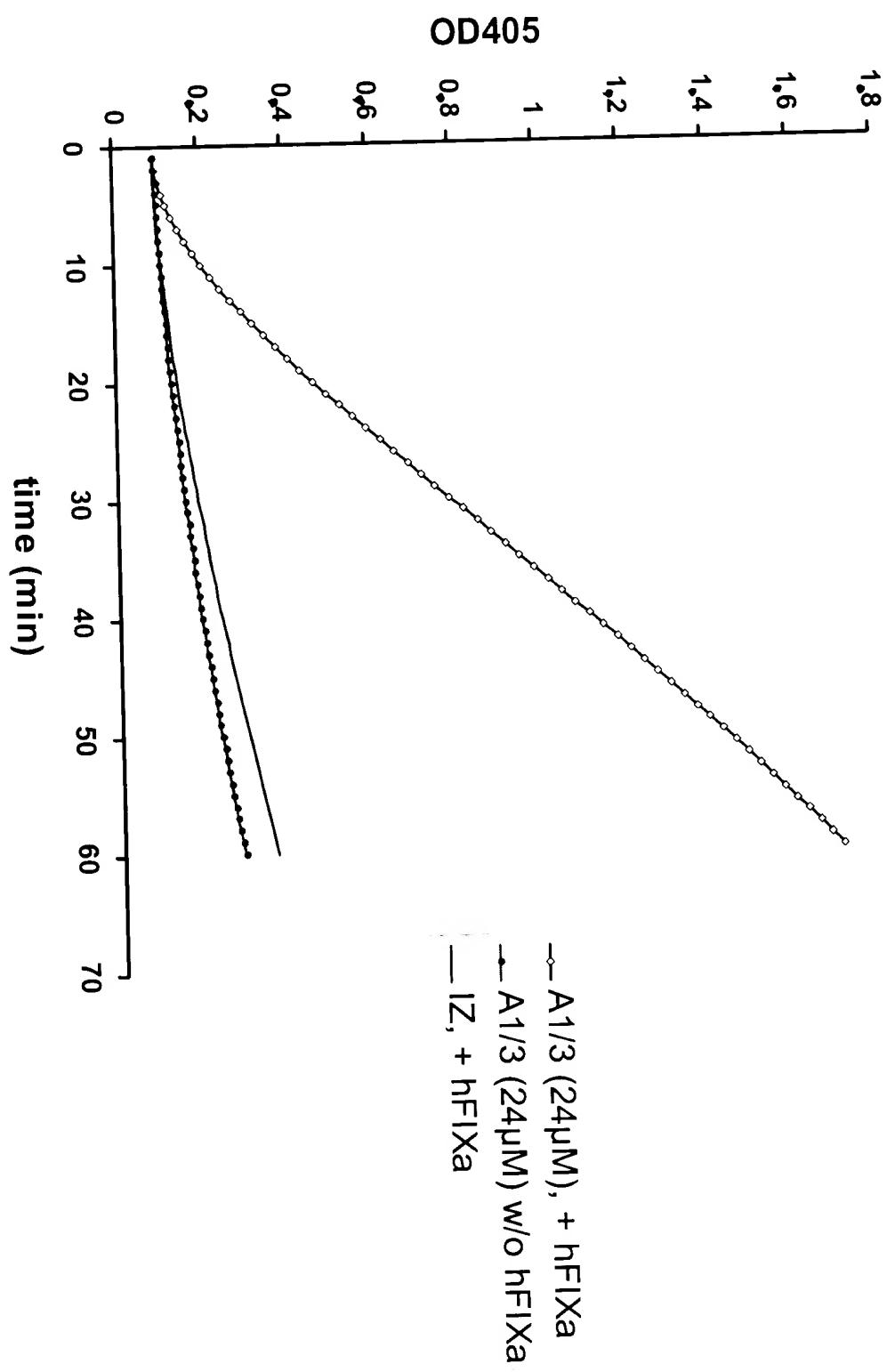
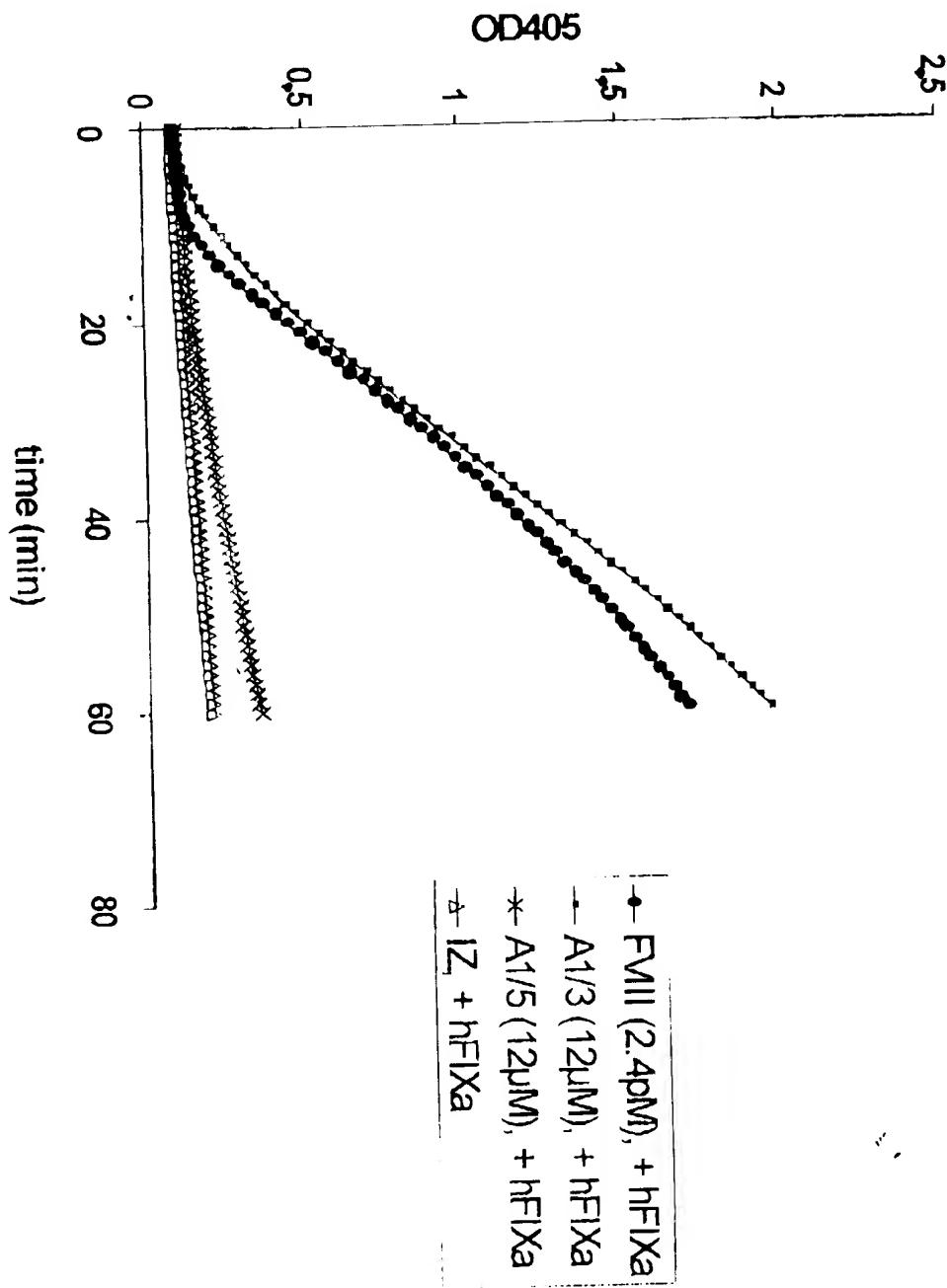


Fig. 19



3A/61

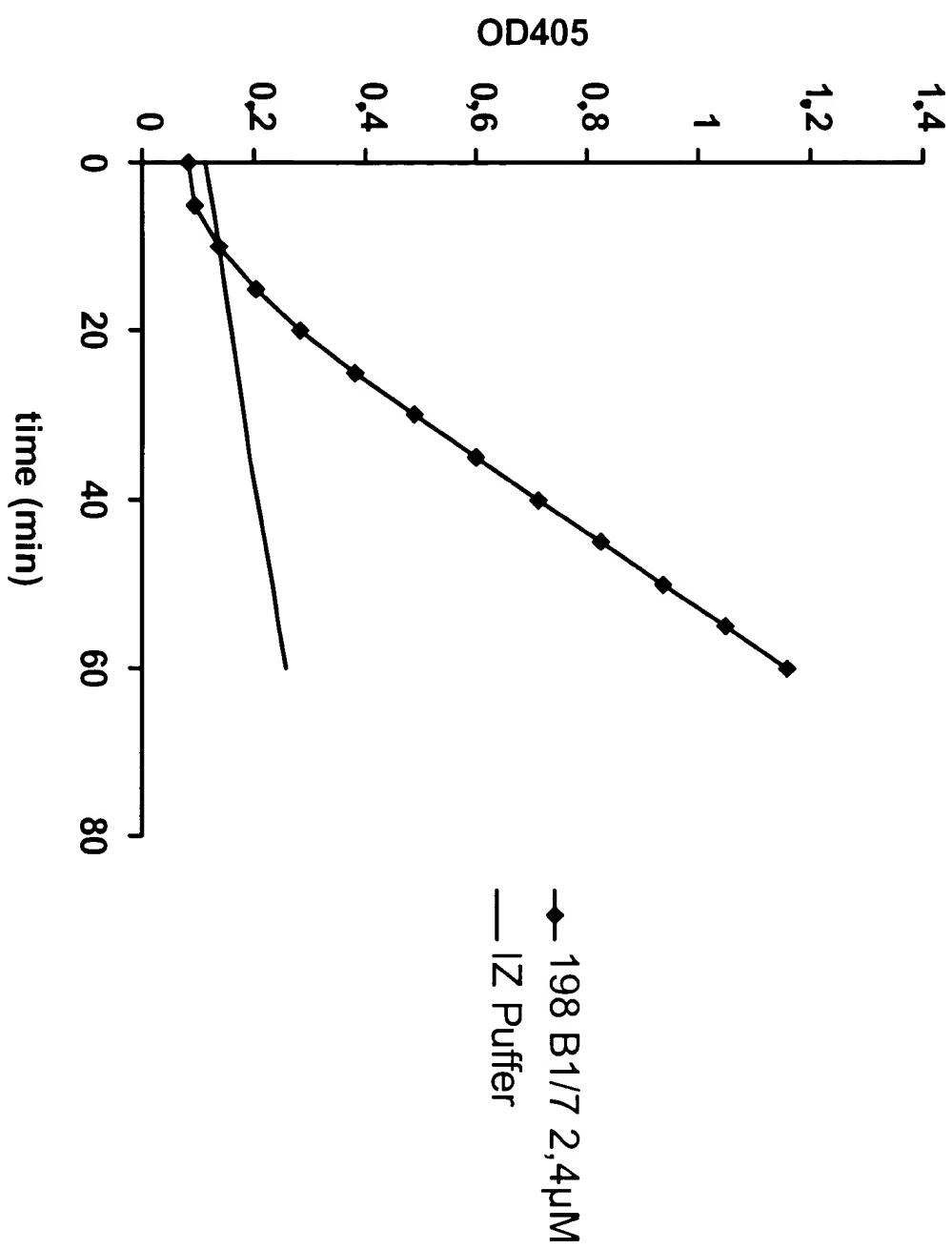


Fig. 21

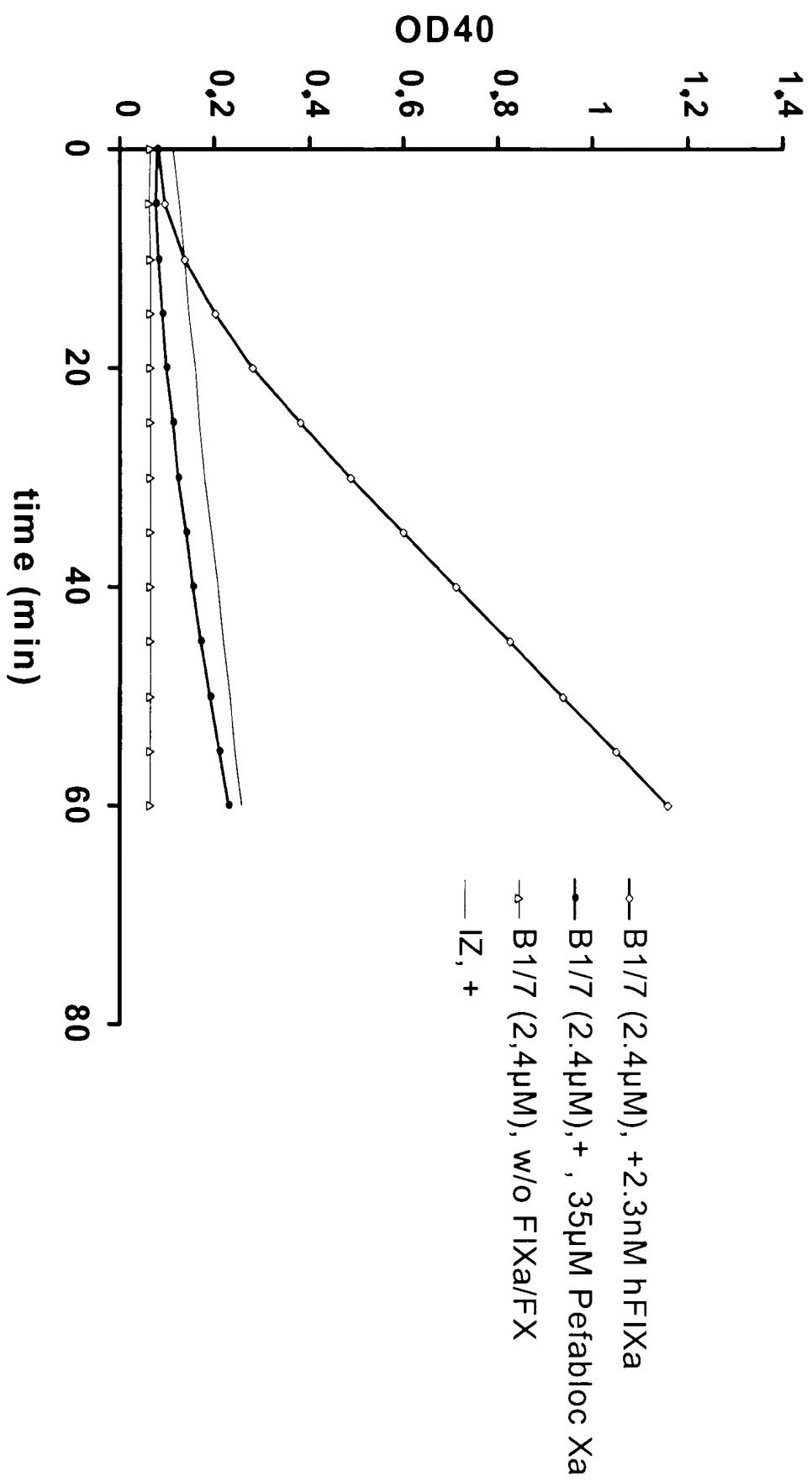


Fig. 22

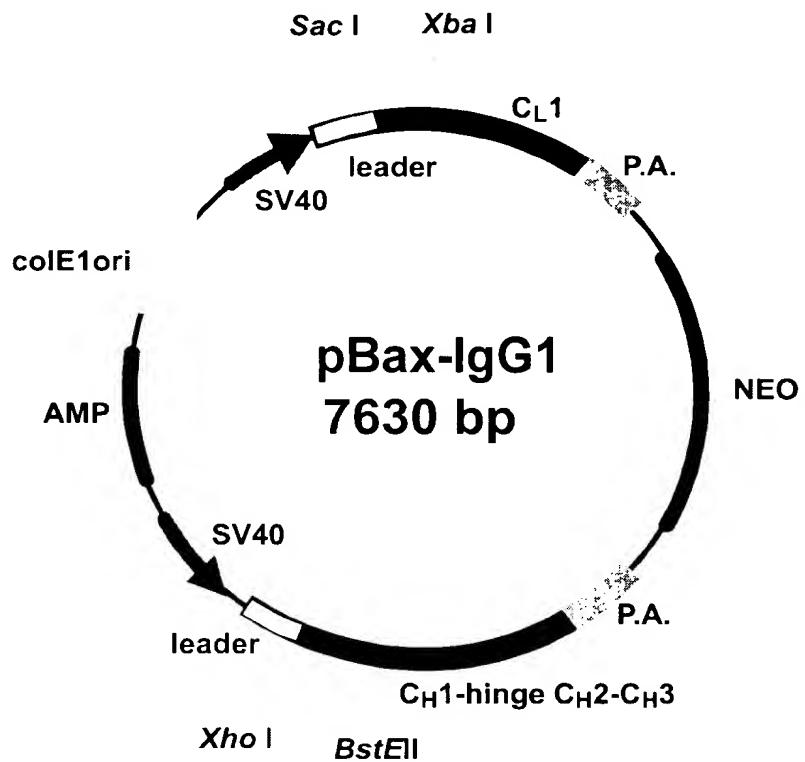


Figure 23

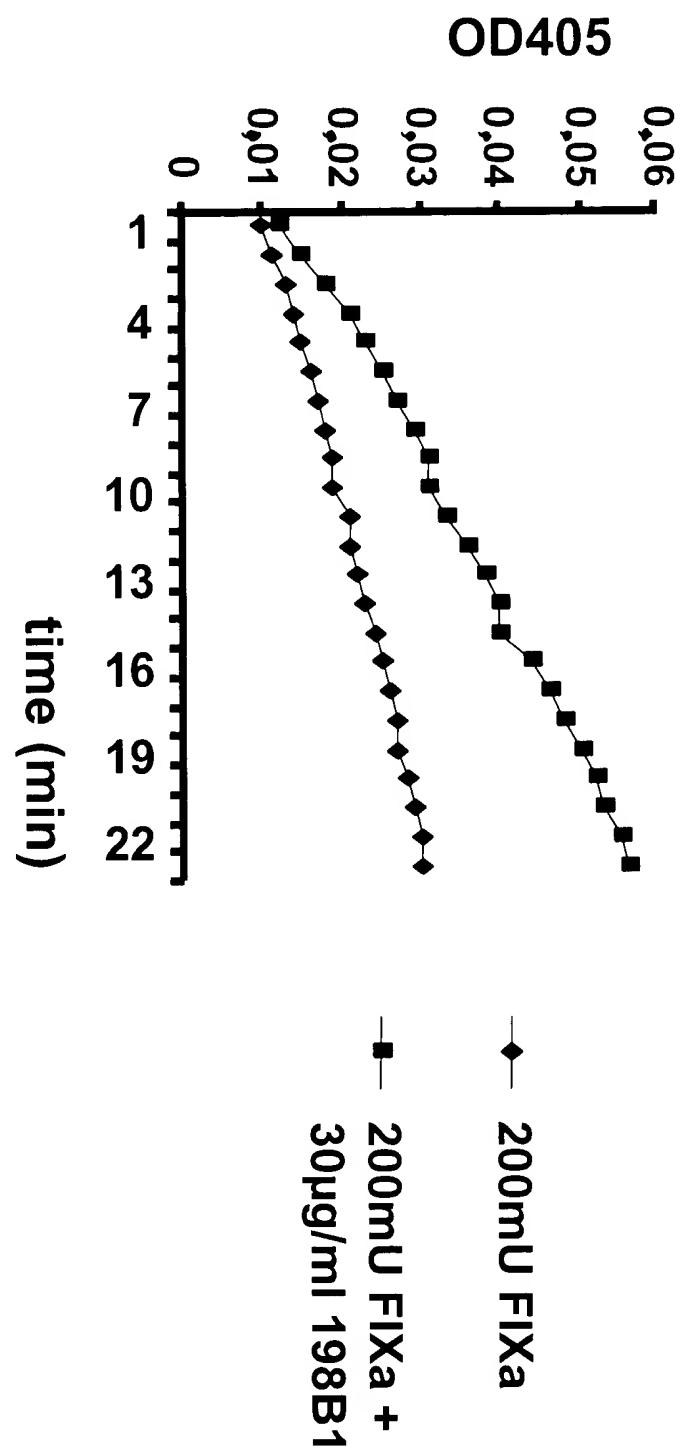


Fig. 24A

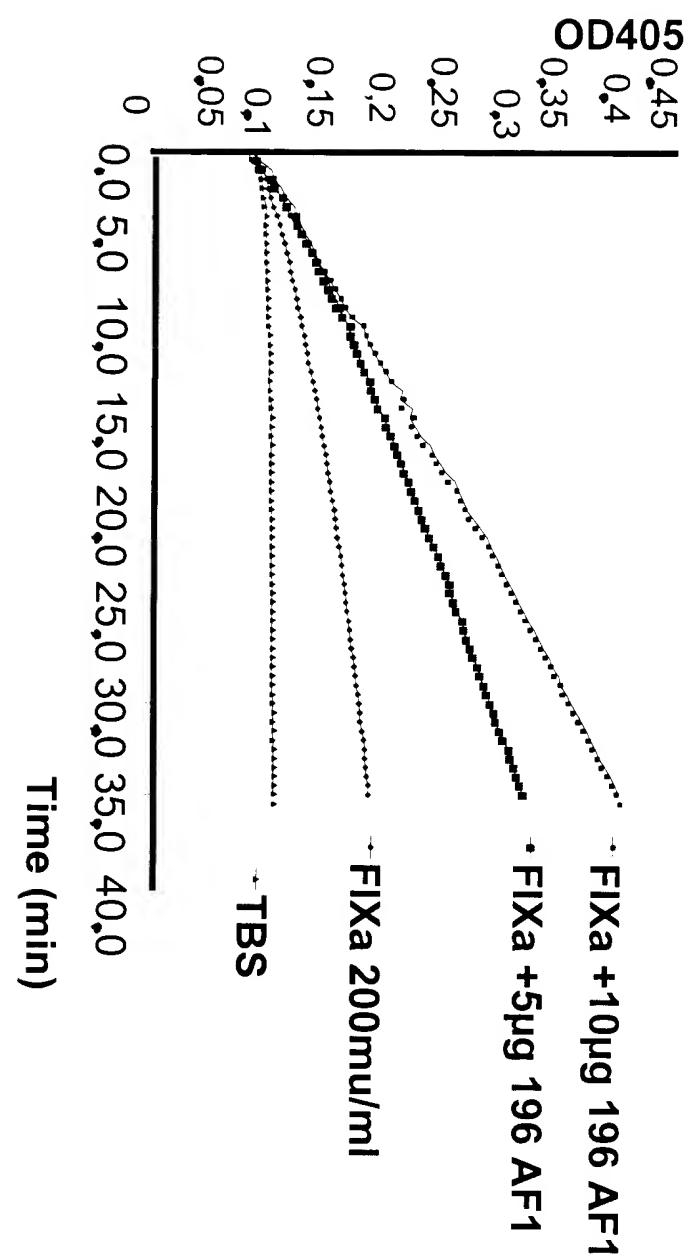


Fig. 24B

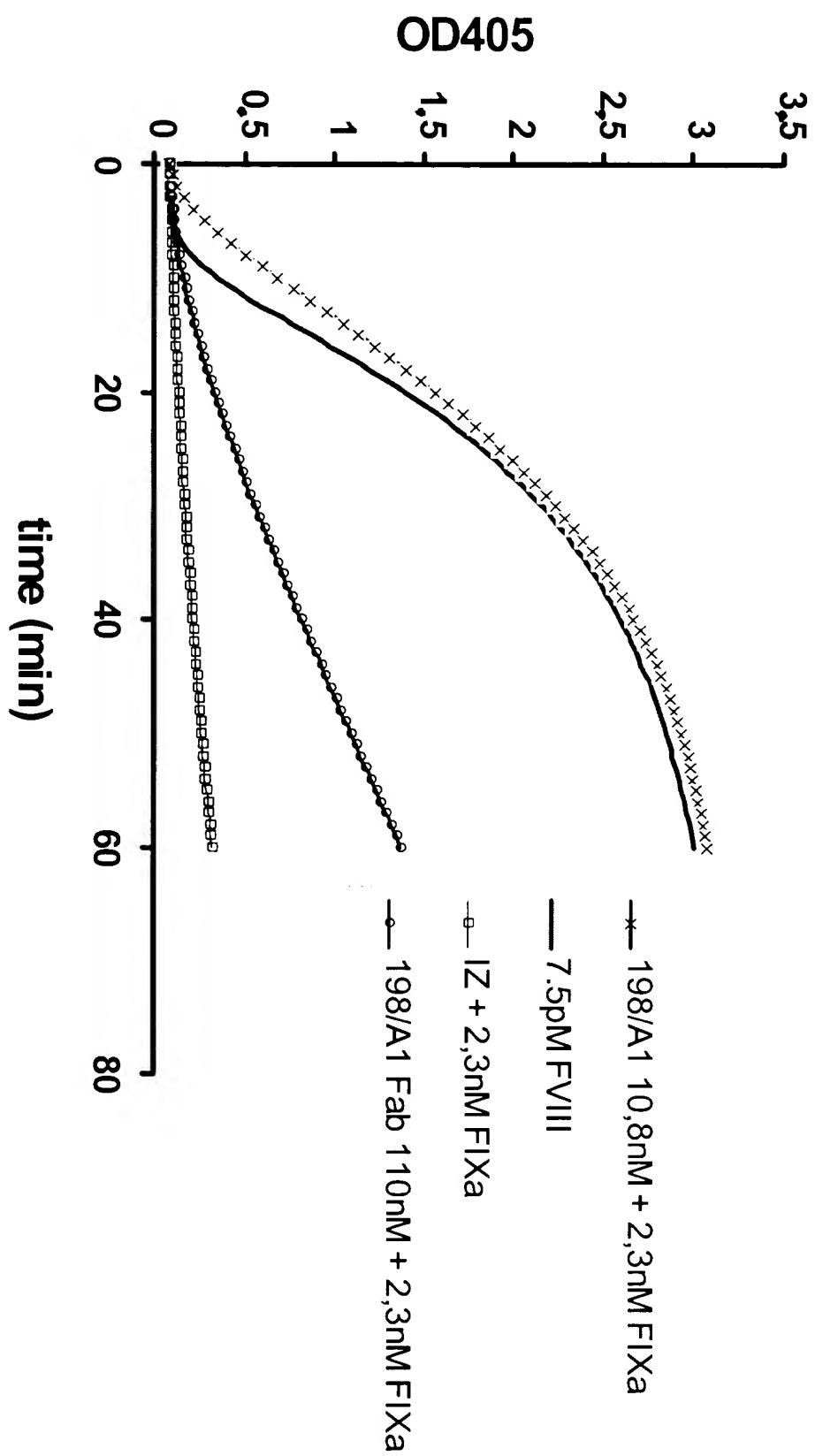


Fig. 25

## PelB-leader

+1 M K Y L L P T A A A G L L L  
 1 ATG AAA TAC CTA TTG CCT ACG GCA GCC GCT GGA TTG TTA TTA  
 TAC TTT ATG GAT AAC GGA TGC CGT CGG CGA CCT AAC AAT AAT

VH

+1 L A A Q P A M A | E V K L V E  
 43 CTC GCG GCC CAG CCG GCC ATG GCG | GAG GTG AAG CTG GTG GAG  
 GAG CGC CGG GTC GGC CGG TAC CGC | CTC CAC TTC GAC CAC CTC

+1 S G G G L V K P G G S L K L  
 85 TCT GGG GGA GGC TTA GTG AAG CCT GGA GGG TCC CTG AAA CTC  
 AGA CCC CCT CCG AAT CAC TTC GGA CCT CCC AGG GAC TTT GAG

+1 S C A A S G F T F S S Y T M  
 127 TCC TGT GCA GCC TCT GGA TTC ACT TTC AGT AGC TAT ACC ATG  
 AGG ACA CGT CGG AGA CCT AAG TGA AAG TCA TCG ATA TGG TAC

+1 S W V R Q T P E K R L E W V  
 169 TCT TGG GTT CGC CAG ACT CCG GAG AAG AGG CTG GAG TGG GTC  
 AGA ACC CAA GCG GTC TGA GGC CTC TTC TCC GAC CTC ACC CAG

+1 A T I S S G G S S T Y Y P D  
 211 GCA ACC ATT AGT AGT GGN GGT AGT TCC ACC TAC TAT CCA GAC  
 CGT TGG TAA TCA TCA CCN CCA TCA AGG TGG ATG ATA GGT CTG

+1 S V K G R F T I S R D N A K  
 253 AGT GTG AAG GGC CGA TTC ACC ATC TCC AGA GAC AAT GCC AAG  
 TCA CAC TTC CCG GCT AAG TGG TAG AGG TCT CTG TTA CGG TTC

+1 N T L Y L Q M S S L R S E D  
 295 AAC ACC CTG TAC CTG CAA ATG AGC AGT CTG AGG TCT GAG GAC  
 TTG TGG GAC ATG GAC GTT TAC TCG TCA GAC TCC AGA CTC CTG

+1 T A M Y Y C T R E G G G F T  
 337 ACA GCC ATG TAT TAC TGT ACA AGA GAG GGG GGT GGT TTC ACC  
 TGT CGG TAC ATA ATG ACA TGT TCT CTC CCC CCA CCA AAG TGG

+1 V N W Y F D V W G A G T S V  
 379 GTC AAC TGG TAC TTC GAT GTC TGG GGC GCA GGA ACC TCA GTC  
 CAG TTG ACC ATG AAG CTA CAG ACC CCG CGT CCT TGG AGT CAG

## Linker

+1 T V S S | G G G G S G G R A S  
 421 ACC GTC TCC TCA GGT GGA GGC GGT TCA GGT GGG CGC GCC TCT  
 TGG CAG AGG AGT CCA CCT CCG CCA AGT CCA CCC GCG CGG AGA

FIG 26-1

VL														
+1	G	G	G	G	S	D	I	V	L	T	Q	S	P	A
463	GGC	GGT	GGC	GGA	TCG	GAC	ATT	GTG	CTG	ACA	CAG	TCT	CCA	GCT
	CCG	CCA	CCG	CCT	AGC	CTG	TAA	CAC	GAC	TGT	GTC	AGA	GGT	CGA
+1	S	L	A	V	S	L	G	Q	R	A	T	I	S	C
505	TCT	TTG	GCT	GTG	TCT	CTA	GGG	CAG	AGG	GCC	ACC	ATA	TCC	TGC
	AGA	AAC	CGA	CAC	AGA	GAT	CCC	GTC	TCC	CGG	TGG	TAT	AGG	ACG
+1	R	A	S	E	S	V	D	S	Y	G	Y	N	F	M
547	AGA	GCC	AGT	GAA	AGT	GTT	GAT	AGT	TAT	GGC	TAT	AAT	TTT	ATG
	TCT	CGG	TCA	CTT	TCA	CAA	CTA	TCA	ATA	CCG	ATA	TTA	AAA	TAC
+1	H	W	Y	Q	Q	I	P	G	Q	P	P	K	L	L
589	CAC	TGG	TAT	CAG	CAG	ATA	CCA	GGA	CAG	CCA	CCC	AAA	CTC	CTC
	GTG	ACC	ATA	GTC	GTC	TAT	GGT	CCT	GTC	GGT	GGG	TTT	GAG	GAG
+1	I	Y	R	A	S	N	L	E	S	G	I	P	A	R
631	ATC	TAT	CGT	GCA	TCC	AAC	CTA	GAG	TCT	GGG	ATC	CCT	GCC	AGG
	TAG	ATA	GCA	CGT	AGG	TTG	GAT	CTC	AGA	CCC	TAG	GGA	CGG	TCC
+1	F	S	G	S	G	S	R	T	D	F	T	L	T	I
673	TTC	AGT	GGC	AGT	GGG	TCT	AGG	ACA	GAC	TTC	ACC	CTC	ACC	ATT
	AAG	TCA	CCG	TCA	CCC	AGA	TCC	TGT	CTG	AAG	TGG	GAG	TGG	TAA
+1	N	P	V	E	A	D	D	V	A	T	Y	Y	C	Q
715	AAT	CCT	GTG	GAG	GCT	GAT	GAT	GTT	GCA	ACC	TAT	TAC	TGT	CAG
	TTA	GGA	CAC	CTC	CGA	CTA	CAA	CGT	TGG	ATA	ATG	ACA	GTC	
+1	Q	S	N	E	D	P	L	T	F	G	T	G	T	R
757	CAA	AGT	AAT	GAG	GAT	CCG	CTC	ACG	TTC	GGT	ACT	GGG	ACC	AGA
	GTT	TCA	TTA	CTC	CTA	GGC	GAG	TGC	AAG	CCA	TGA	CCC	TGG	TCT
Spacer												Alkaline phosphatase		
+1	L	E	I	K	R	A	A	A	A	R	A	P	E	M
799	CTG	GAA	ATA	AAA	CGG	GCG	GCC	GCA	GCC	CGG	GCA	CCA	GAA	ATG
	GAC	CTT	TAT	TTT	GCC	CGC	CGG	CGT	CGG	GCC	CGT	GGT	CTT	TAC
+1	P	V	L	E	N	R	A	A	Q	G	D	I	T	A
841	CCT	GTT	CTG	GAA	AAC	CGG	GCT	GCT	CAG	GGC	GAT	ATT	ACT	GCA
	GGA	CAA	GAC	CTT	TTG	GCC	CGA	CGA	GTC	CCG	CTA	TAA	TGA	CGT
+1	P	G	G	A	R	R	L	T	G	D	Q	T	A	A
883	CCC	GGC	GGT	GCT	CGC	CGT	TTA	ACG	GGT	GAT	CAG	ACT	GCC	GCT
	GGG	CCG	CCA	CGA	GCG	GCA	AAT	TGC	CCA	CTA	GTC	TGA	CGG	CGA
+1	L	R	D	S	L	S	D	K	P	A	K	N	I	I
925	CTG	CGT	GAT	TCT	CTT	AGC	GAT	AAA	CCT	GCA	AAA	AAT	ATT	ATT
	GAC	GCA	CTA	AGA	GAA	TCG	CTA	TTT	GGA	CGT	TTT	TTA	TAA	TAA

f16 26-2

+1 L L I G D G M G D S E I T A  
 967 TTG CTG ATT GGC GAT GGG ATG GGG GAC TCG GAA ATT ACT ACT GCC  
 AAC GAC TAA CCG CTA CCC TAC CCC CTG AGC CTT TAA TGA CGG

+1 A R N Y A E G A G G F F K G  
 1009 GCA CGT AAT TAT GCC GAA GGT GCG GGC GGC TTT TTT AAA GGT  
 CGT GCA TTA ATA CGG CTT CCA CGC CCG CCG AAA AAA TTT CCA

+1 I D A L P L T G Q Y T H Y A  
 1051 ATA GAT GCC TTA CCG CTT ACC GGG CAA TAC ACT CAC TAT GCG  
 TAT CTA CGG AAT GGC GAA TGG CCC GTT ATG TGA GTG ATA CGC

+1 L N K K T G K P D Y V T D S  
 1093 CTG AAT AAA AAA ACC GGC AAA CCG GAC TAC GTC ACC GAC TCG  
 GAC TTA TTT TTT TGG CCG TTT GGC CTG ATG CAG TGG CTG AGC

+1 A A S A T A W S T G V K T Y  
 1135 GCT GCA TCA GCA ACC GCC TGG TCA ACC GGT GTC AAA ACC TAT  
 CGA CGT AGT CGT TGG CGG ACC AGT TGG CCA CAG TTT TGG ATA

+1 N G A L G V D I H E K D H P  
 1177 AAC GGC GCG CTG GGC GTC GAT ATT CAC GAA AAA GAT CAC CCA  
 TTG CCG CGC GAC CCG CAG CTA TAA GTG CTT TTT CTA GTG GGT

+1 T I L E M A K A A G L A T G  
 1219 ACG ATT CTG GAA ATG GCA AAA GCC GCA GGT CTG GCG ACC GGT  
 TGC TAA GAC CTT TAC CGT TTT CGG CGT CCA GAC CGC TGG CCA

+1 N V S T A E L Q D A T P A A  
 1261 AAC GTT TCT ACC GCA GAG TTG CAG GAT GCC ACG CCC GCT GCG  
 TTG CAA AGA TGG CGT CTC AAC GTC CTA CGG TGC GGG CGA CGC

+1 L V A H V T S R K C Y G P S  
 1303 CTG GTG GCA CAT GTG ACC TCG CGC AAA TGC TAC GGT CCG AGC  
 GAC CAC CGT GTA CAC TGG AGC GCG TTT ACG ATG CCA GGC TCG

+1 A T S E K C P G N A L E K G  
 1345 GCG ACC AGT GAA AAA TGT CCG GGT AAC GCT CTG GAA AAA GGC  
 CGC TGG TCA CTT TTT ACA GGC CCA TTG CGA GAC CTT TTT CCG

+1 G K G S I T E Q L L N A R A  
 1387 GGA AAA GGA TCG ATT ACC GAA CAG CTG CTT AAC GCT CGT GCG  
 CCT TTT CCT AGC TAA TGG CTT GTC GAC GAA TTG CGA GCA CGG

+1 D V T L G G G A K T F A E T  
 1429 GAC GTT ACG CTT GGC GGC GGC GCA AAA ACC TTT GCT GAA ACG  
 CTG CAA TGC GAA CCG CCG CGT TTT TGG AAA CGA CTT TGC

FIG 26-3

+1 A T A G E W Q G K T L R E Q  
 1471 GCA ACC GCT GGT GAA TGG CAG GGA AAA ACG CTG CGT GAA CAG  
 CGT TGG CGA CCA CTT ACC GTC CCT TTT TGC GAC GCA CTT GTC

+1 A Q A R G Y Q L V S D A A S  
 1513 GCA CAG GCG CGT GGT TAT CAG TTG GTG AGC GAT GCT GCC TCA  
 CGT GTC CGC GCA CCA ATA GTC AAC CAC TCG CTA CGA CGG AGT

+1 L N S V T E A N Q Q K P L L  
 1555 CTG AAT TCG GTG ACG GAA GCG AAT CAG CAA AAA CCC CTG CTT  
 GAC TTA AGC CAC TGC CTT CGC TTA GTC GTT TTT GGG GAC GAA

+1 G L F A D G N M P V R W L G  
 1597 GGC CTG TTT GCT GAC GGC AAT ATG CCA GTG CGC TGG CTA GGA  
 CCG GAC AAA CGA CTG CCG TTA TAC GGT CAC GCG ACC GAT CCT

+1 P K A T Y H G N I D K P A V  
 1639 CCG AAA GCA ACG TAC CAT GGC AAT ATC GAT AAG CCC GCA GTC  
 GGC TTT CGT TGC ATG GTA CCG TTA TAG CTA TTC GGG CGT CAG

+1 T C T P N P Q R N D S V P T  
 1681 ACC TGT ACG CCA AAT CCG CAA CGT AAT GAC AGT GTA CCA ACC  
 TGG ACA TGC GGT TTA GGC GTT GCA TTA CTG TCA CAT GGT TGG

+1 L A Q M T D K A I E L L S K  
 1723 CTG GCG CAG ATG ACC GAC AAA GCC ATT GAA TTG TTG AGT AAA  
 GAC CGC GTC TAC TGG CTG TTT CCG TAA CTT AAC AAC TCA TTT

+1 N E K G F F L Q V E G A S I  
 1765 AAT GAG AAA GGC TTT TTC CTG CAA GTT GAA GGT GCG TCA ATC  
 TTA CTC TTT CCG AAA AAG GAC GTT CAA CTT CCA CGC AGT TAG

+1 D K Q D H A A N P C G Q I G  
 1807 GAT AAA CAG GAT CAT GCT GCG AAT CCT TGT GGG CAA ATT GGC  
 CTA TTT GTC CTA GTA CGA CGC TTA GGA ACA CCC GTT TAA CCG

+1 E T V D L D E A V Q R A L E  
 1849 GAG ACG GTC GAT CTC GAT GAA GCC GTA CAA CGG GCG CTG GAA  
 CTC TGC CAG CTA GAG CTA CTT CGG CAT GTT GCC CGC GAC CTT

+1 F A K K E G N T L V I V T A  
 1891 TTC GCT AAA AAG GAG GGT AAC ACG CTG GTC ATA GTC ACC GCT  
 AAG CGA TTT TTC CTC CCA TTG TGC GAC CAG TAT CAG TGG CGA

+1 D H A H A S Q I V A P D T K  
 1933 GAT CAC GCC CAC GCC AGC CAG ATT GTT GCG CCG GAT ACC AAA  
 CTA GTG CGG GTG CGG TCG GTC TAA CAA CGC GGC CTA TGG TTT

+1 A P G L T Q A L N T K D G A  
 1975 GCT CCG GGC CTC ACC CAG GCG CTA AAT ACC AAA GAT GGC GCA  
 CGA GGC CCG GAG TGG GTC CGC GAT TTA TGG TTT CTA CCG CGT

F16 26-4

+1 V M V M S Y G N S E E D S Q  
2017 GTG ATG GTG ATG AGT TAC GGG AAC TCC GAA GAG GAT TCA CAA  
CAC TAC CAC TAC TCA ATG CCC TTG AGG CTT CTC CTA AGT GTT

+1 E H T G S Q L R I A A Y G P  
2059 GAA CAT ACC GGC AGT CAG TTG CGT ATT GCG GCG TAT GGC CCG  
CTT GTA TGG CCG TCA GTC AAC GCA TAA CGC CGC ATA CCG GGC

+1 H A A N V V G L T D Q T D L  
2101 CAT GCC GCC AAT GTT GTT GGA CTG ACC GAC CAG ACC GAT CTC  
GTA CGG CGG TTA CAA CAA CCT GAC TGG CTG GTC TGG CTA GAG

+1 F Y T M K A A L G D I | His tag A H H  
2143 TTC TAC ACC ATG AAA GCC GCT CTG GGG GAT ATC | GCA CAC CAT  
AAG ATG TGG TAC TTT CGG CGA GAC CCC CTA TAG | CGT GTG GTA

+1 H H H H \*  
2185 CAC CAT CAC CAT TAA  
GTG GTA GTG GTA ATT

Fig. 26-5

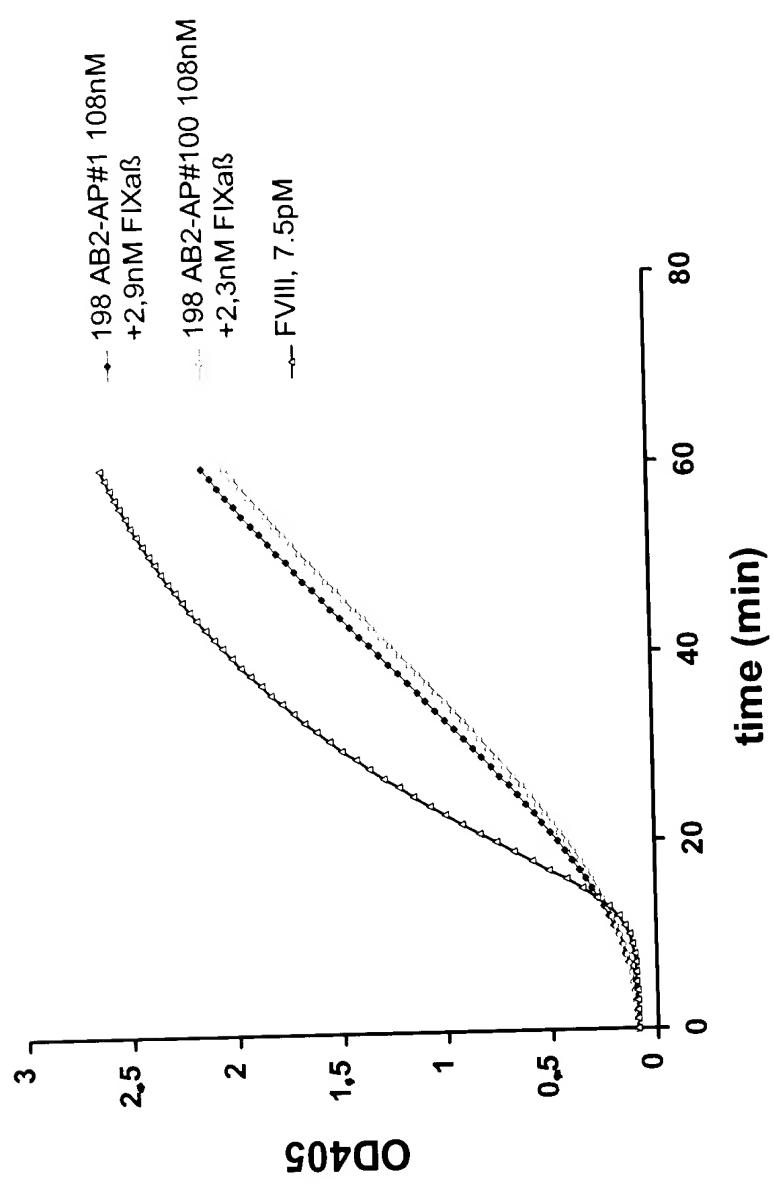


Fig. 27

PelB-Leader

+1 M K Y L L P T A A A G L L L L  
 1 ATG AAA TAC CTA TTG CCT ACG GCA GCC GCT GGA TTG TTA TTA CTC  
 TAC TTT ATG GAT AAC GGA TGC CGT CGG CGA CCT AAC AAT AAT GAG

VH

+1 A A Q P A M A E V K L V E S G  
 46 GCG GCC CAG CCG GCC ATG GCG GAG GTG AAG CTG GTG GAG TCT GGG  
 CGC CGG GTC GGC CGG TAC CGC CTC CAC TTC GAC CAC CTC AGA CCC

+1 G G L V K P G G S L K L S C A  
 91 GGA GGC TTA GTG AAG CCT GGA GGG TCC CTG AAA CTC TCC TGT GCA  
 CCT CCG AAT CAC TTC GGA CCT CCC AGG GAC TTT GAG AGG ACA CGT

+1 A S G F T F S S Y T M S W V R  
 136 GCC TCT GGA TTC ACT TTC AGT AGC TAT ACC ATG TCT TGG GTT CGC  
 CGG AGA CCT AAG TGA AAG TCA TCG ATA TGG TAC AGA ACC CAA GCG

+1 Q T P E K R L E W V A T I S S  
 181 CAG ACT CCG GAG AAG AGG CTG GAG TGG GTC GCA ACC ATT AGT AGT  
 GTC TGA GGC CTC TTC TCC GAC CTC ACC CAG CGT TGG TAA TCA TCA

+1 G G S S T Y Y P D S V K G R F  
 226 GGN GGT AGT TCC ACC TAC TAT CCA GAC AGT GTG AAG GGC CGA TTC  
 CCN CCA TCA AGG TGG ATG ATA GGT CTG TCA CAC TTC CCG GCT AAG

+1 T I S R D N A K N T L Y L Q M  
 271 ACC ATC TCC AGA GAC AAT GCC AAG AAC ACC CTG TAC CTG CAA ATG  
 TGG TAG AGG TCT CTG TTA CGG TTC TTG TGG GAC ATG GAC GTT TAC

+1 S S L R S E D T A M Y Y C T R  
 316 AGC AGT CTG AGG TCT GAG GAC ACA GCC ATG TAT TAC TGT ACA AGA  
 TCG TCA GAC TCC AGA CTC CTG TGT CGG TAC ATA ATG ACA TGT TCT

+1 E G G F T V N W Y F D V W G  
 361 GAG GGG GGT GGT TTC ACC GTC AAC TGG TAC TTC GAT GTC TGG GGC  
 CTC CCC CCA CCA AAG TGG CAG TTG ACC ATG AAG CTA CAG ACC CCG

Linker

+1 A G T S V T V S S G G G G S G  
 406 GCA GGA ACC TCA GTC ACC GTC TCC TCA GGT GGA GGC GGT TCA GGT  
 CGT CCT TGG AGT CAG TGG CAG AGT CCA CCT CCG CCA AGT CCA

VL

+1 G R A S G G G G S D I V L T Q  
 451 GGG CGC GCC TCT GGC GGT GGC GGA TCG GAC ATT GTG CTG ACA CAG  
 CCC GCG CGG AGA CCG CCA CCG CCT AGC CTG TAA CAC GAC TGT GTC

F1628-1

Fig. 28-2

PelB-leader

+1 M K Y L L P T A A A G L L L  
 1 ATG AAA TAC CTA TTG CCT ACG GCA GCC GCT GGA TTG TTA TTA  
 TAC TTT ATG GAT AAC GGA TGC CGT CGG CGA CCT AAC AAT AAT

VH

+1 L A A Q P A M A E V Q L Q Q  
 43 CTC GCG GCC CAG CCG GCC ATG GCC GAG GTT CAG CTT CAG CAG  
 GAG CGC CGG GTC GGC CGG TAC CGG CTC CAA GTC GAA GTC GTC

+1 S G P E L V K P G A S V K I  
 85 TCT GGA CCT GAG CTG GTG AAG CCC GGG GCC TCA GTG AAG ATT  
 AGA CCT GGA CTC GAC CAC TTC GGG CCC CGG AGT CAC TTC TAA

+1 S C K A S G Y A F S S S W M  
 127 TCC TGC AAA GCT TCT GGC TAC GCA TTC AGT AGC TCT TGG ATG  
 AGG ACG TTT CGA AGA CCG ATG CGT AAG TCA TCG AGA ACC TAC

+1 N W V K Q R P G Q G L E W I  
 169 AAC TGG GTG AAG CAG AGG CCT GGA CAG GGT CTT GAG TGG ATT  
 TTG ACC CAC TTC GTC TCC GGA CCT GTC CCA GAA CTC ACC TAA

+1 G R I Y P G N G D T N Y N G  
 211 GGA CGG ATT TAT CCT GGA AAT GGA GAT ACT AAC TAC AAT GGG  
 CCT GCC TAA ATA GGA CCT TTA CCT CTA TGA TTG ATG TTA CCC

+1 K F K G K A T L T A D K S S  
 253 AAG TTC AAG GGC AAG GCC ACA CTG ACT GCA GAC AAA TCC TCC  
 TTC AAG TTC CCG TTC CGG TGT GAC TGA CGT CTG TTT AGG AGG

+1 S T A Y M Q L S S L T S V D  
 295 AGC ACA GCC TAC ATG CAG CTC AGC AGC CTG ACC TCT GTG GAC  
 TCG TGT CGG ATG TAC GTC GAG TCG GAC TGG AGA CAC CTG

+1 S A V Y F C A D G N V Y Y Y  
 337 TCT GCG GTC TAT TTC TGT GCA GAT GGT AAC GTA TAT TAC TAT  
 AGA CGC CAG ATA AAG ACA CGT CTA CCA TTG CAT ATA ATG ATA

+1 A M D Y W G Q G T S V T V S  
 379 GCT ATG GAC TAC TGG GGT CAA GGA ACC TCA GTC ACC GTC TCC  
 CGA TAC CTG ATG ACC CCA GTT CCT TGG AGT CAG TGG CAG AGG

Linker

+1 S | G G G G S G G R A S G G G  
 421 TCA | GGT GGA GGC GGT TCA GGT GGG CGC GCC TCT GGC GGT GGC  
 AGT | CCA CCT CCG CCA AGT CCA CCC GCG CGG AGA CCG CCA CCG

VL

+1 G S | Q I V L T Q S P A S L A  
 463 GGA TCG | CAA ATT GTT CTC ACC CAG TCT CCT GCT TCC TTA GCT  
 CCT AGC | GTT TAA CAA GAG TGG GTC AGA GGA CGA AGG AAT CGA

F1629-1

+1 V S L G Q R A T I S C R A S  
 505 GTA TCT CTG GGG CAG AGG GCC ACC ATC TCA TGC AGG GCC AGC  
 CAT AGA GAC CCC GTC TCC CGG TGG TAG AGT ACG TCC CGG TCG

+1 K S V S T S G Y S Y M H W Y  
 547 AAA AGT GTC AGT ACA TCT GGC TAT AGT TAT ATG CAC TGG TAC  
 TTT TCA CAG TCA TGT AGA CCG ATA TCA ATA TAC GTG ACC ATG

+1 Q Q K P G Q P P K L L I Y L  
 589 CAA CAG AAA CCA GGA CAG CCA CCC AAA CTC CTC ATC TAT CTT  
 GTT GTC TTT GGT CCT GTC GGT GGG TTT GAG GAG TAG ATA GAA

+1 A S N L E S G V P A R F S G  
 631 GCA TCC AAC CTA GAA TCT GGG GTC CCT GCC AGG TTC AGT GGC  
 CGT AGG TTG GAT CTT AGA CCC CAG GGA CGG TCC AAG TCA CCG

+1 S G S G T D F T L N I H P V  
 673 AGT GGG TCT GGG ACA GAC TTC ACC CTC AAC ATC CAT CCT GTG  
 TCA CCC AGA CCC TGT CTG AAG TGG GAG TTG TAG GTA GGA CAC

+1 E E E D A A T Y Y C Q H S R  
 715 GAG GAG GAG GAT GCT GCA ACC TAT TAC TGT CAG CAC AGT AGG  
 CTC CTC CTC CTA CGA CGT TGG ATA ATG ACA GTC GTG TCA TCC

+1 E L P R T F G G G T K L E I  
 757 GAG CTT CCT CGG ACG TTC GGT GGA GGC ACC AAG CTG GAA ATC  
 CTC GAA GGA GCC TGC AAG CCA CCT CCG TGG TTC GAC CTT TAG

Spacer				Alkaline phosphatase									
+1	K	R	A A A A	R	A	P	E	M	P	V	L		
799	AAA	CGG	GCG GCC GCA GCC	CGG	GCA	CCA	GAA	ATG	CCT	GTT	CTG		
	TTT	GCC	CGC CGG CGT CGG	GCC	CGT	GGT	CTT	TAC	GGA	CAA	GAC		

+1 E N R A A Q G D I T A P G G  
 841 GAA AAC CGG GCT GCT CAG GGC GAT ATT ACT GCA CCC GGC GGT  
 CTT TTG GCC CGA CGA GTC CCG CTA TAA TGA CGT GGG CCG CCA

+1 A R R L T G D Q T A A L R D  
 883 GCT CGC CGT TTA ACG GGT GAT CAG ACT GCC GCT CTG CGT GAT  
 CGA GCG GCA AAT TGC CCA CTA GTC TGA CGG CGA GAC GCA CTA

+1 S L S D K P A K N I I L L I  
 925 TCT CTT AGC GAT AAA CCT GCA AAA AAT ATT ATT TTG CTG ATT  
 AGA GAA TCG CTA TTT GGA CGT TTT TTA TAA AAC GAC TAA

+1 G D G M G D S E I T A A R N  
 967 GGC GAT GGG ATG GGG GAC TCG GAA ATT ACT GCC GCA CGT AAT  
 CCG CTA CCC TAC CCC CTG AGC CTT TAA TGA CGG CGT GCA TTA

FIG 29-2

+1 Y A E G A G G F F K G I D A  
1009 TAT GCC GAA GGT GCG GGC GGC TTT TTT AAA GGT ATA GAT GCC  
ATA CGG CTT CCA CGC CCG CCG AAA AAA TTT CCA TAT CTA CGG

+1 L P L T G Q Y T H Y A L N K  
1051 TTA CCG CTT ACC GGG CAA TAC ACT CAC TAT GCG CTG AAT AAA  
AAT GGC GAA TGG CCC GTT ATG TGA GTG ATA CGC GAC TTA TTT

+1 K T G K P D Y V T D S A A S  
1093 AAA ACC GGC AAA CCG GAC TAC GTC ACC GAC TCG GCT GCA TCA  
TTT TGG CCG TTT GGC CTG ATG CAG TGG CTG AGC CGA CGT AGT

+1 A T A W S T G V K T Y N G A  
1135 GCA ACC GCC TGG TCA ACC GGT GTC AAA ACC TAT AAC GGC GCG  
CGT TGG CGG ACC AGT TGG CCA CAG TTT TGG ATA TTG CCG CGC

+1 L G V D I H E K D H P T I L  
1177 CTG GGC GTC GAT ATT CAC GAA AAA GAT CAC CCA ACG ATT CTG  
GAC CCG CAG CTA TAA GTG CTT TTT CTA GTG GGT TGC TAA GAC

+1 E M A K A A G L A T G N V S  
1219 GAA ATG GCA AAA GCC GCA GGT CTG GCG ACC GGT AAC GTT TCT  
CTT TAC CGT TTT CGG CGT CCA GAC CGC TGG CCA TTG CAA AGA

+1 T A E L Q D A T P A A L V A  
1261 ACC GCA GAG TTG CAG GAT GCC ACG CCC GCT GCG CTG GTG GCA  
TGG CGT CTC AAC GTC CTA CGG TGC GGG CGA CGC GAC CAC CGT

+1 H V T S R K C Y G P S A T S  
1303 CAT GTG ACC TCG CGC AAA TGC TAC GGT CCG AGC GCG ACC AGT  
GTA CAC TGG AGC GCG TTT ACG ATG CCA GGC TCG CGC TGG TCA

+1 E K C P G N A L E K G G K G  
1345 GAA AAA TGT CCG GGT AAC GCT CTG GAA AAA GGC GGA AAA GGA  
CTT TTT ACA GGC CCA TTG CGA GAC CTT TTT CCG CCT TTT CCT

+1 S I T E Q L L N A R A D V T  
1387 TCG ATT ACC GAA CAG CTG CTT AAC GCT CGT GCC GAC GTT ACG  
AGC TAA TGG CTT GTC GAC GAA TTG CGA GCA CGG CTG CAA TGC

+1 L G G A K T F A E T A T A  
1429 CTT GGC GGC GGC GCA AAA ACC TTT GCT GAA ACG GCA ACC GCT  
GAA CCG CCG CCG CGT TTT TGG AAA CGA CTT TGC CGT TGG CGA

+1 G E W Q G K T L R E Q A Q A  
1471 GGT GAA TGG CAG GGA AAA ACG CTG CGT GAA CAG GCA CAG GCG  
CCA CTT ACC GTC CCT TTT TGC GAC GCA CTT GTC CGT GTC CGC

F16 29-3

+1 R G Y Q L V S D A A S L N S  
1513 CGT GGT TAT CAG TTG GTG AGC GAT GCT GCC TCA CTG AAT TCG  
GCA CCA ATA GTC AAC CAC TCG CTA CGA CGG AGT GAC TTA AGC

+1 V T E A N Q Q K P L L G L F  
1555 GTG ACG GAA GCG AAT CAG CAA AAA CCC CTG CTT GGC CTG TTT  
CAC TGC CTT CGC TTA GTC GTT GGG GAC GAA CCG GAC AAA

+1 A D G N M P V R W L G P K A  
1597 GCT GAC GGC AAT ATG CCA GTG CGC TGG CTA GGA CCG AAA GCA  
CGA CTG CCG TTA TAC GGT CAC GCG ACC GAT CCT GGC TTT CGT

+1 T Y H G N I D K P A V T C T  
1639 ACG TAC CAT GGC AAT ATC GAT AAG CCC GCA GTC ACC TGT ACG  
TGC ATG GTA CCG TTA TAG CTA TTC GGG CGT CAG TGG ACA TGC

+1 P N P Q R N D S V P T L A Q  
1681 CCA AAT CCG CAA CGT AAT GAC AGT GTA CCA ACC CTG GCG CAG  
GGT TTA GGC GTT GCA TTA CTG TCA CAT GGT TGG GAC CGC GTC

+1 M T D K A I E L L S K N E K  
1723 ATG ACC GAC AAA GCC ATT GAA TTG TTG AGT AAA AAT GAG AAA  
TAC TGG CTG TTT CGG TAA CTT AAC AAC TCA TTT TTA CTC TTT

+1 G F F L Q V E G A S I D K Q  
1765 GGC TTT TTC CTG CAA GTT GAA GGT GCG TCA ATC GAT AAA CAG  
CCG AAA AAG GAC GTT CAA CTT CCA CGC AGT TAG CTA TTT GTC

+1 D H A A N P C G Q I G E T V  
1807 GAT CAT GCT GCG AAT CCT TGT GGG CAA ATT GGC GAG ACG GTC  
CTA GTA CGA CGC TTA GGA ACA CCC GTT TAA CCG CTC TGC CAG

+1 D L D E A V Q R A L E F A K  
1849 GAT CTC GAT GAA GCC GTA CAA CGG GCG CTG GAA TTC GCT AAA  
CTA GAG CTA CTT CGG CAT GTT GCC CGC GAC CTT AAG CGA TTT

+1 K E G N T L V I V T A D H A  
1891 AAG GAG GGT AAC ACG CTG GTC ATA GTC ACC GCT GAT CAC GCC  
TTC CTC CCA TTG TGC GAC CAG TAT CAG TGG CGA CTA GTG CGG

+1 H A S Q I V A P D T K A P G  
1933 CAC GCC AGC CAG ATT GTT GCG CCG GAT ACC AAA GCT CCG GGC  
GTG CGG TCG GTC TAA CAA CGC GGC CTA TGG TTT CGA GGC CCG

+1 L T Q A L N T K D G A V M V  
1975 CTC ACC CAG GCG CTA AAT ACC AAA GAT GGC GCA GTG ATG GTG  
GAG TGG GTC CGC GAT TTA TGG TTT CTA CCG CGT CAC TAC CAC

F16 29-4

+1 M S Y G N S E E D S Q E H T  
2017 ATG AGT TAC GGG AAC TCC GAA GAG GAT TCA CAA GAA CAT ACC  
TAC TCA ATG CCC TTG AGG CTT CTC CTA AGT GTT CTT GTA TGG

+1 G S Q L R I A A Y G P H A A  
2059 GGC AGT CAG TTG CGT ATT GCG GCG TAT GGC CCG CAT GCC GCC  
CCG TCA GTC AAC GCA TAA CGC CGC ATA CCG GGC GTA CGG CGG

+1 N V V G L T D Q T D L F Y T  
2101 AAT GTT GTT GGA CTG ACC GAC CAG ACC GAT CTC TTC TAC ACC  
TTA CAA CAA CCT GAC TGG CTG GTC TGG CTA GAG AAG ATG TGG

+1 M K A A L G D I A | His tag  
2143 ATG AAA GCC GCT CTG GGG GAT ATC GCA CAC CAT CAC CAT CAC  
TAC TTT CGG CGA GAC CCC CTA TAG CGT GTG GTA GTG GTA GTG

+1 H \*  
2185 CAT TAA  
GTA ATT

Fig. 29-5

PelB-Leader

+1 M K Y L L P T A A A G L L L L  
 1 ATG AAA TAC CTA TTG CCT ACG GCA GCC GCT GGA TTG TTA TTA CTC  
 TAC TTT ATG GAT AAC GGA TGC CGT CGG CGA CCT AAC AAT AAT GAG

VH

+1 A A Q P A M A | E V Q L Q Q S G  
 46 GCG GCC CAG CCG GCC ATG GCG | GAG GTT CAG CTT CAG CAG TCT GGA  
 CGC CGG GTC GGC CGG TAC CGC | CTC CAA GTC GAA GTC GTC AGA CCT

+1 P E L V K P G A S V K I S C K  
 91 CCT GAG CTG GTG AAG CCC GGG GCC TCA GTG AAG ATT TCC TGC AAA  
 GGA CTC GAC CAC TTC GGG CCC CGG AGT CAC TTC TAA AGG ACG TTT

+1 A S G Y A F S S S W M N W V K  
 136 GCT TCT GGC TAC GCA TTC AGT AGC TCT TGG ATG AAC TGG GTG AAG  
 CGA AGA CCG ATG CGT AAG TCA TCG AGA ACC TAC TTG ACC CAC TTC

+1 Q R P G Q G L E W I G R I Y P  
 181 CAG AGG CCT GGA CAG GGT CTT GAG TGG ATT GGA CGG ATT TAT CCT  
 GTC TCC GGA CCT GTC CCA GAA CTC ACC TAA CCT GCC TAA ATA GGA

+1 G N G D T N Y N G K F K G K A  
 226 GGA AAT GGA GAT ACT AAC TAC AAT GGG AAG TTC AAG GGC AAG GCC  
 CCT TTA CCT CTA TGA TTG ATG TTA CCC TTC AAG TTC CCG TTC CGG

+1 T L T A D K S S S T A Y M Q L  
 271 ACA CTG ACT GCA GAC AAA TCC TCC AGC ACA GCC TAC ATG CAG CTC  
 TGT GAC TGA CGT CTG TTT AGG AGG TCG TGT CGG ATG TAC GTC GAG

+1 S S L T S V D S A V Y F C A D  
 316 AGC AGC CTG ACC TCT GTG GAC TCT GCG GTC TAT TTC TGT GCA GAT  
 TCG TCG GAC TGG AGA CAC CTG AGA CGC CAG ATA AAG ACA CGT CTA

+1 G N V Y Y Y A M D Y W G Q G T  
 361 GGT AAC GTA TAT TAC TAT GCT ATG GAC TAC TGG GGT CAA GGA ACC  
 CCA TTG CAT ATA ATG ATA CGA TAC CTG ATG ACC CCA GTT CCT TGG

Linker

+1 S V T V S S | G G G G S G G R A  
 406 TCA GTC ACC GTC TCC TCA | GGT GGA GGC GGT TCA GGT GGG CGC GCC  
 AGT CAG TGG CAG AGG AGT CCA CCT CCG CCA AGT CCA CCC GCG CGG

FIG 30-1

VL  
+1 S G G G G S Q I V L T Q S P A  
451 TCT GGC GGT GGC GGA TCG CAA ATT GTT CTC ACC CAG TCT CCT GCT  
AGA CCG CCA CCG CCT AGC GTT TAA CAA GAG TGG GTC AGA GGA CGA

+1 S L A V S L G Q R A T I S C R  
496 TCC TTA GCT GTA TCT CTG GGG CAG AGG GCC ACC ATC TCA TGC AGG  
AGG AAT CGA CAT AGA GAC CCC GTC TCC CGG TGG TAG AGT ACG TCC

+1 A S K S V S T S G Y S Y M H W  
541 GCC AGC AAA AGT GTC AGT ACA TCT GGC TAT AGT TAT ATG CAC TGG  
CGG TCG TTT TCA CAG TCA TGT AGA CCG ATA TCA ATA TAC GTG ACC

+1 Y Q Q K P G Q P P K L L I Y L  
586 TAC CAA CAG AAA CCA GGA CAG CCA CCC AAA CTC CTC ATC TAT CTT  
ATG GTT GTC TTT GGT CCT GTC GGT TTT GAG GAG TAG ATA GAA

+1 A S N L E S G V P A R F S G S  
631 GCA TCC AAC CTA GAA TCT GGG GTC CCT GCC AGG TTC AGT GGC AGT  
CGT AGG TTG GAT CTT AGA CCC CAG GGA CGG TCC AAG TCA CCG TCA

+1 G S G T D F T L N I H P V E E  
676 GGG TCT GGG ACA GAC TTC ACC CTC AAC ATC CAT CCT GTG GAG GAG  
CCC AGA CCC TGT CTG AAG TGG GAG TTG TAG GTA GGA CAC CTC CTC

+1 E D A A T Y Y C Q H S R E L P  
721 GAG GAT GCT GCA ACC TAT TAC TGT CAG CAC AGT AGG GAG CTT CCT  
CTC CTA CGA CGT TGG ATA ATG ACA GTC GTG TCA TCC CTC GAA GGA

+1 R T F G G G T K L E I K R A A  
766 CGG ACG TTC GGT GGA GGC ACC AAG CTG GAA ATC AAA CGG GCG GCC  
GCC TGC AAG CCA CCT CCG TGG TTC GAC CTT TAG TTT GCC CGC CGG

Hinge  
+1 A P K P S T P P G S S R M K Q  
811 GCA CCG AAG CCT TCC ACT CCG CCC GGG TCT TCC CGT ATG AAA CAG  
CGT GGC TTC GGA AGG TGA GGC GGG CCC AGA AGG GCA TAC TTT GTC

+1 L E D K V E E L L S K N Y H L  
856 CTG GAA GAC AAA GTA GAG GAG CTC CTT AGC AAG AAC TAC CAT CTA  
GAC CTT CTG TTT CAT CTC CTC GAG GAA TCG TTC TTG ATG GTA GAT

+1 E N E V A R L K K L V G E R G  
901 GAA AAC GAG GTA GCT CGT CTG AAA AAG CTT GTT GGT GAA CGT GGT  
CTT TTG CTC CAT CGA GCA GAC TTT TTC GAA CAA CCA CTT GCA CCA

F1630-2

Spacer His-tag  
+1 G H H H H H \*  
946 GGT CAC CAT CAC CAT TAA  
CCA GTG GTA GTG GTA GTG GTA ATT

Fig. 30 - 3

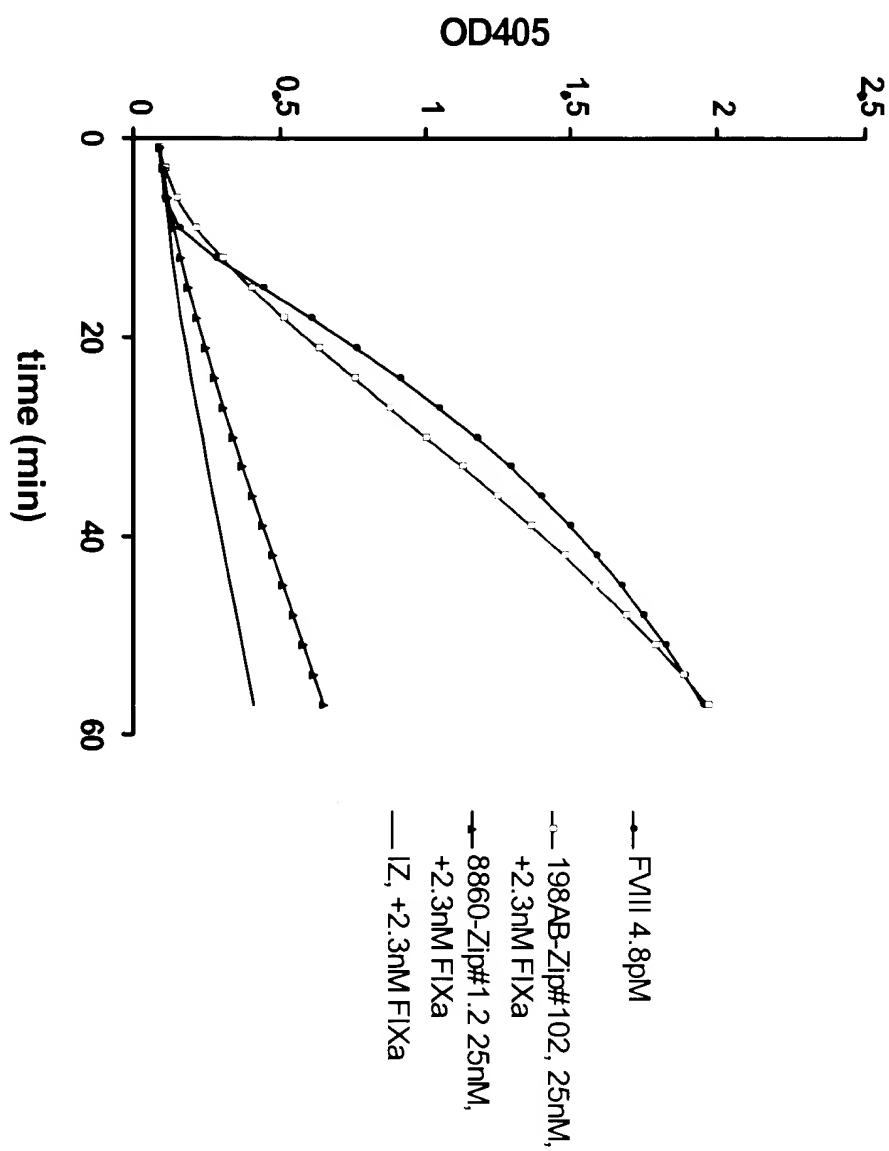


Fig. 31

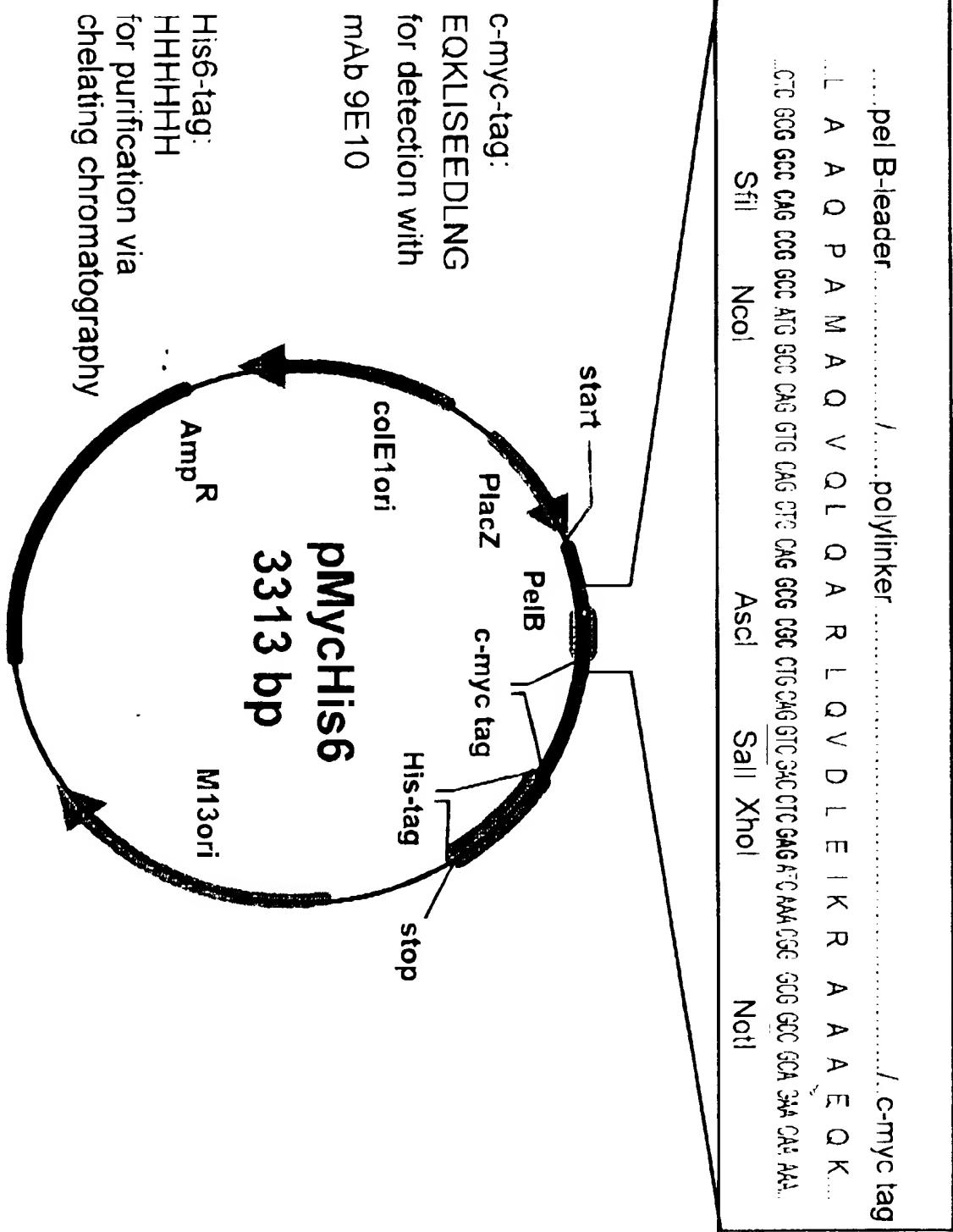


Fig. 32

HindIII

2206 CAG GAA ACA GCT ATG ACC ATG ATT ACG CCA AGC TTC CAT GAA AAT  
GTC CTT TGT CGA TAC TGG TAC TAA TGC GGT TCG AAG GTA CTT TTA

PelB-Leader

2251 TCT ATT TCA AGG AGA CAG TCA TAA TGA AAT ACC TAT TGC CTA CGG  
AGA TAA AGT TCC TCT GTC AGT ATT ACT TTA TGG ATA ACG GAT GCC

A A A G L L L A A Q P A M A |  
*SfiI*

2296 CAG CCG CTG GAT TGT TAT TAC TCG CGG CCC AGC CGG CCA TGG CCC  
GTC GGC GAC CTA ACA ATA ATG AGC GCC GGG TCG GCC GGT ACC GGG

Polylinker

Q V Q L Q A R L Q V D L E I K  
*AscI*

2341 AGG TGC AGC TGC AGG CGC GCC TGC AGG TCG ACC TCG AGA TCA AAC  
TCC ACG TCG ACG TCC GCG CGG ACG TCC AGC TGG AGC TCT AGT TTG

R | Spacer | Myc-tag  
A A A | E Q K L I S E E D L N  
*NotI*

2386 GGG CGG CCG CAG AAC AAA AAC TCA TCT CAG AAG AGG ATC TGA ATG  
CCC GCC GGC GTC TTG TTT TTG AGT AGA GTC TTC TCC TAG ACT TAC

G | Spacer | His tag  
A A | H H H H H \* \*  
*ECORI*

2431 GGG CGG CAC ATC ACC ATC ACC ATC ACT AAT AAG AAT TCA CTG GCC  
CCC GCC GTG TAG TGG TAG TGG TAG TGA TTA TTC TTA AGT GAC CGG

Fig. 33

PelB-leader

+1 M K Y L L P T A A A G L L L L  
 1 ATG AAA TAC CTA TTG CCT ACG GCA GCC GCT GGA TTG TTA TTA CTC  
 TAC TTT ATG GAT AAC GGA TGC CGT CGG CGA CCT AAC AAT AAT GAG

VH

+1 A A Q P A M A | E V K L V E S G  
 46 GCG GCC CAG CCG GCC ATG GCC | GAG GTG AAG CTG GTG GAG TCT GGG  
 CGC CGG GTC GGC CGG TAC CGG | CTC CAC TTC GAC CAC CTC AGA CCC

+1 G G L V K P G G S L K L S C A  
 91 GGA GGC TTA GTG AAG CCT GGA GGG TCC CTG AAA CTC TCC TGT GCA  
 CCT CCG AAT CAC TTC GGA CCT CCC AGG GAC TTT GAG AGG ACA CGT

+1 A S G F T F S S Y T M S W V R  
 136 GCC TCT GGA TTC ACT TTC AGT AGC TAT ACC ATG TCT TGG GTT CGC  
 CGG AGA CCT AAG TGA AAG TCA TCG ATA TGG TAC AGA ACC CAA GCG

+1 Q T P E K R L E W V A T I S S  
 181 CAG ACT CCG GAG AAG AGG CTG GAG TGG GTC GCA ACC ATT AGT AGT  
 GTC TGA GGC CTC TTC TCC GAC CTC ACC CAG CGT TGG TAA TCA TCA

+1 G G S S T Y Y P D S V K G R F  
 226 GGN GGT AGT TCC ACC TAC TAT CCA GAC AGT GTG AAG GGC CGA TTC  
 CCN CCA TCA AGG TGG ATG ATA GGT CTG TCA CAC TTC CCG GCT AAG

+1 T I S R D N A K N T L Y L Q M  
 271 ACC ATC TCC AGA GAC AAT GCC AAG AAC ACC CTG TAC CTG CAA ATG  
 TGG TAG AGG TCT | CTG TTA CGG TTC TTG TGG GAC ATG GAC GTT TAC

+1 S S L R S E D T A M Y Y C T R  
 316 AGC AGT CTG AGG TCT GAG GAC ACA GCC ATG TAT TAC TGT ACA AGA  
 TCG TCA GAC TCC AGA CTC CTG TGT CGG TAC ATA ATG ACA TGT TCT

+1 E G G G F T V N W Y F D V W G  
 361 GAG GGG GGT GGT TTC ACC GTC AAC TGG TAC TTC GAT GTC TGG GGC  
 CTC CCC CCA CCA AAG TGG CAG TTG ACC ATG AAG CTA CAG ACC CCG

Leader

+1 A G T S V T V S S | G G G G S G  
 406 GCA GGA ACC TCA GTC ACC GTC TCC TCA | GGT GGA GGC GGT TCA GGT  
 CGT CCT TGG AGT CAG TGG CAG AGG AGT CCA CCT CCG CCA AGT CCA

VK

+1 G R A S G G G G S | D I V L T Q  
 451 GGG CGC GCC TCT GGC GGT GGC GGA TCG | GAC ATT GTG CTG ACA CAG

FIG 34-1

CCC GCG CGG AGA CCG CCA CCG CCT AGC CTG TAA CAC GAC TGT GTC  
 +1 S P A S L A V S L G Q R A T I  
 496 TCT CCA GCT TCT TTG GCT GTG TCT CTA GGG CAG AGG GCC ACC ATA  
     AGA GGT CGA AGA AAC CGA CAC AGA GAT CCC GTC TCC CGG TGG TAT

+1 S C R A S E S V D S Y G Y N F  
 541 TCC TGC AGA GCC AGT GAA AGT GTT GAT AGT TAT GGC TAT AAT TTT  
     AGG ACG TCT CGG TCA CTT TCA CAA CTA TCA ATA CCG ATA TTA AAA

+1 M H W Y Q Q I P G Q P P K L L  
 586 ATG CAC TGG TAT CAG CAG ATA CCA GGA CAG CCA CCC AAA CTC CTC  
     TAC GTG ACC ATA GTC GTC TAT GGT CCT GTC GGT GGG TTT GAG GAG

+1 I Y R A S N L E S G I P A R F  
 631 ATC TAT CGT GCA TCC AAC CTA GAG TCT GGG ATC CCT GCC AGG TTC  
     TAG ATA GCA CGT AGG TTG GAT CTC AGA CCC TAG GGA CGG TCC AAG

+1 S G S G S R T D F T L T I N P  
 676 AGT GGC AGT GGG TCT AGG ACA GAC TTC ACC CTC ACC ATT AAT CCT  
     TCA CCG TCA CCC AGA TCC TGT CTG AAG TGG GAG TGG TAA TTA GGA

+1 V E A D D V A T Y Y C Q Q S N  
 721 GTG GAG GCT GAT GAT GTT GCA ACC TAT TAC TGT CAG CAA AGT AAT  
     CAC CTC CGA CTA CAA CGT TGG ATA ATG ACA GTC GTT TCA TTA

+1 E D P L T F G T G T R L E I K  
 766 GAG GAT CCG CTC ACG TTC GGT ACT GGG ACC AGA CTG GAA ATA AAA  
     CTC CTA GGC GAG TGC AAG CCA TGA CCC TGG TCT GAC CTT TAT TTT

Spacer                                   Myc-tag  
 +1 R | A A A | E Q K L I S E E D L N  
 811 CGG | GCG GCC GCA | GAA CAA AAA CTC ATC TCA GAA GAG GAT CTG AAT  
     GCC | CGC CGG CGT | CTT GTT TTT GAG TAG AGT CTT CTC CTA GAC TTA

Spacer                                   His tag  
 +1 G | A A | H H H H H H \* \*  
 856 GGG | GCG GCA | CAT CAC CAT CAC CAT CAC TAA TAA  
     CCC | CGC CGT | GTA GTG GTA GTG GTA GTG ATT ATT

Fig. 34-2

## PelB-leader

+1 M K Y L L P T A A A G L L L L  
 1 ATG AAA TAC CTA TTG CCT ACG GCA GCC GCT GGA TTG TTA TTA CTC  
 TAC TTT ATG GAT AAC GGA TGC CGT CGG CGA CCT AAC AAT AAT GAG

## VH

+1 A A Q P A M A | E V Q L Q Q S G  
 46 GCG GCC CAG CCG GCC ATG GCC | GAG GTT CAG CTT CAG CAG TCT GGA  
 CGC CGG GTC GGC CGG TAC CGG | CTC CAA GTC GAA GTC GTC AGA CCT

+1 P E L V K P G A S V K I S C K  
 91 CCT GAG CTG GTG AAG CCC GGG GCC TCA GTG AAG ATT TCC TGC AAA  
 GGA CTC GAC CAC TTC GGG CCC CGG AGT CAC TTC TAA AGG ACG TTT

+1 A S G Y A F S S S W M N W V K  
 136 GCT TCT GGC TAC GCA TTC AGT AGC TCT TGG ATG AAC TGG GTG AAG  
 CGA AGA CCG ATG CGT AAG TCA TCG AGA ACC TAC TTG ACC CAC TTC

+1 Q R P G Q G L E W I G R I Y P  
 181 CAG AGG CCT GGA CAG GGT CTT GAG TGG ATT GGA CGG ATT TAT CCT  
 GTC TCC GGA CCT GTC CCA GAA CTC ACC TAA CCT GCC TAA ATA GGA

+1 G N G D T N Y N G K F K G K A  
 226 GGA AAT GGA GAT ACT AAC TAC AAT GGG AAG TTC AAG GGC AAG GCC  
 CCT TTA CCT CTA TGA TTG ATG TTA CCC TTC AAG TTC CCG TTC CGG

+1 T L T A D K S S S T A Y M Q L  
 271 ACA CTG ACT GCA GAC AAA TCC TCC AGC ACA GCC TAC ATG CAG CTC  
 TGT GAC TGA CGT CTG TTT AGG AGG TCG TGT CGG ATG TAC GTC GAG

+1 S S L T S V D S A V Y F C A D  
 316 AGC AGC CTG ACC TCT GTG GAC TCT GCG GTC TAT TTC TGT GCA GAT  
 TCG TCG GAC TGG AGA CAC CTG AGA CGC CAG ATA AAG ACA CGT CTA

+1 G N V Y Y A M D Y W G Q G T  
 361 GGT AAC GTA TAT TAC TAT GCT ATG GAC TAC TGG GGT CAA GGA ACC  
 CCA TTG CAT ATA ATG ATA CGA TAC CTG ATG ACC CCA GTT CCT TGG

## Leader

+1 S V T V S S | G G G G S G G R A  
 406 TCA GTC ACC GTC TCC TCA | GGT GGA GGC GGT TCA GGT GGG CGC GCC  
 AGT CAG TGG CAG AGG AGT | CCA CCT CCG CCA AGT CCA CCC GCG CGG

## VL

+1 S G G G G S | Q I V L T Q S P A  
 451 TCT GGC GGT GGC GGA TCG | CAA ATT GTT CTC ACC CAG TCT CCT GCT  
 AGA CCG CCA CCG CCT AGC | GTT TAA CAA GAG TGG GTC AGA GGA CGA

F1635-1

+1 S L A V S L G Q R A T I S C R  
496 TCC TTA GCT GTA TCT CTG GGG CAG AGG GCC ACC ATC TCA TGC AGG  
AGG AAT CGA CAT AGA GAC CCC GTC TCC CGG TGG TAG AGT ACG TCC

+1 A S K S V S T S G Y S Y M H W  
541 GCC AGC AAA AGT GTC AGT ACA TCT GGC TAT AGT TAT ATG CAC TGG  
CGG TCG TTT TCA CAG TCA TGT AGA CCG ATA TCA ATA TAC GTG ACC

+1 Y Q Q K P G Q P P K L L I Y L  
586 TAC CAA CAG AAA CCA GGA CAG CCA CCC AAA CTC CTC ATC TAT CTT  
ATG GTT GTC TTT GGT CCT GTC GGT GGG TTT GAG GAG TAG ATA GAA

+1 A S N L E S G V P A R F S G S  
631 GCA TCC AAC CTA GAA TCT GGG GTC CCT GCC AGG TTC AGT GGC AGT  
CGT AGG TTG GAT CTT AGA CCC CAG GGA CGG TCC AAG TCA CCG TCA

+1 G S G T D F T L N I H P V E E  
676 GGG TCT GGG ACA GAC TTC ACC CTC AAC ATC CAT CCT GTG GAG GAG  
CCC AGA CCC TGT CTG AAG TGG GAG TTG TAG GTA GGA CAC CTC CTC

+1 E D A A T Y Y C Q H S R E L P  
721 GAG GAT GCT GCA ACC TAT TAC TGT CAG CAC AGT AGG GAG CTT CCT  
CTC CTA CGA CGT TGG ATA ATG ACA GTC GTG TCA TCC CTC GAA GGA

+1 R T F G G G T K L E I K R | Spacer  
766 CGG ACG TTC GGT GGA GGC ACC AAG CTG GAA ATC AAA CGG | A A  
GCC TGC AAG CCA CCT CCG TGG TTC GAC CTT TAG TTT GCC | GCG GCC  
CGC CGG

+1 A | Myc-tag | Spacer  
811 GCA | E Q K L I S E E D L N G | A A  
CGT | GAA CAA AAA CTC ATC TCA GAA GAG GAT CTG AAT GGG | GCG GCA  
CTT GTT TTT GAG TAG AGT CTT CTC CTA GAC TTA CCC | CGC CGT

+1 H H H H H H \*  
856 CAT CAC CAT CAC CAT CAC TAA  
GTA GTG GTA GTG GTA GTG ATT

Fig. 35-2

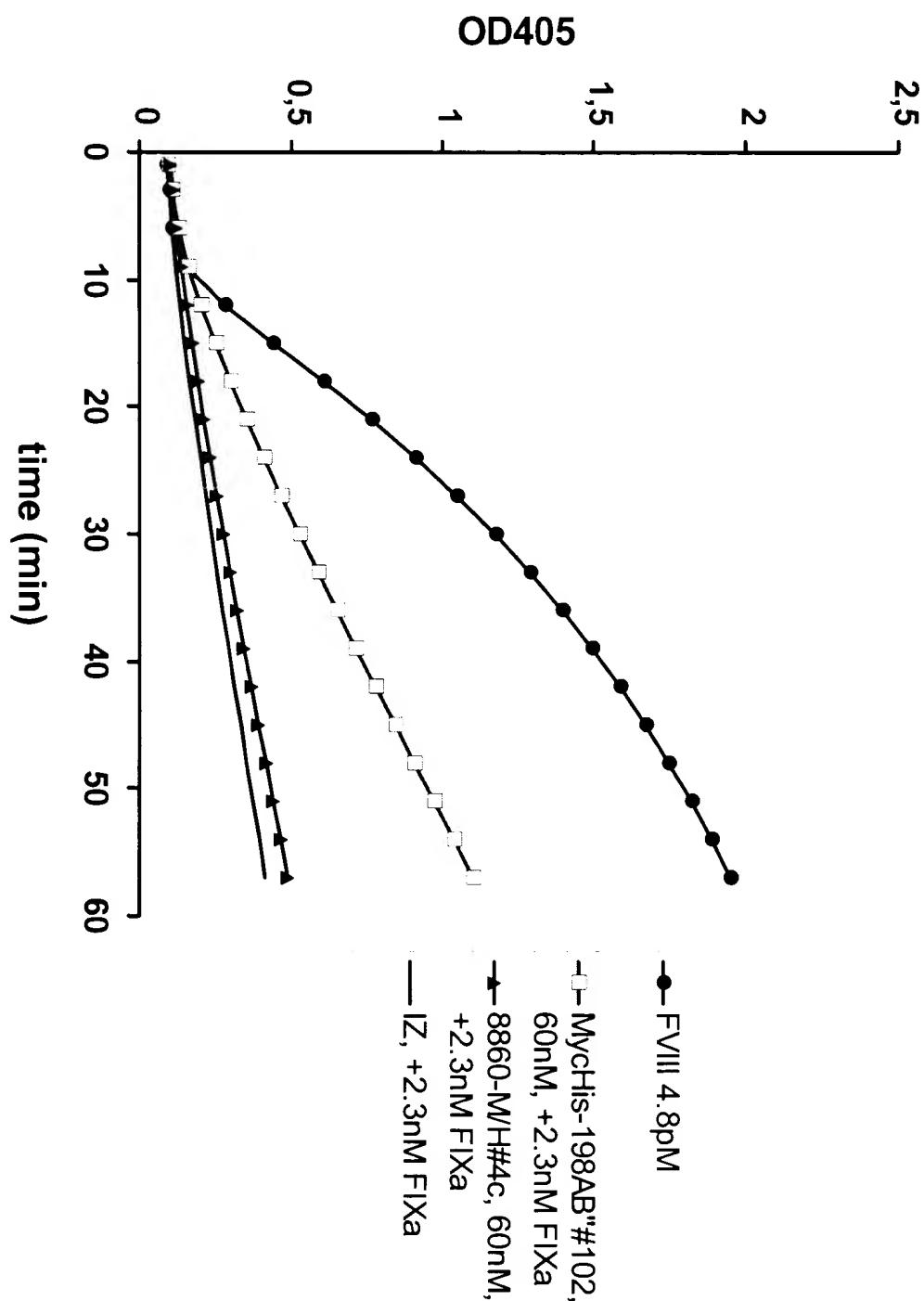


Fig. 36